

PATENT ABSTRACTS OF JAPAN

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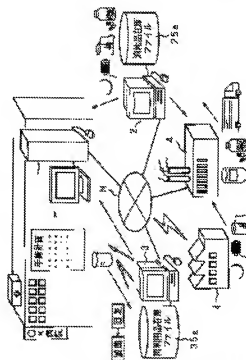
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(54) SUPPORTING METHOD FOR HOSPITAL BUSINESS, OPERATION GOODS MANAGING METHOD, OPERATION GOODS MANAGING SYSTEM, ARTICLES OF CONSUMPTION MANAGING DEVICE, CENTRAL MANAGING DEVICE, REUSE GOODS MANAGING DEVICE, AND RECORDING MEDIUM

(57)Abstract:

PROBLEM TO BE SOLVED: To prevent a medical accident due to the lack of the stock of operation goods and to make a medical treatment action to be smooth by managing the stock on the operation goods.

SOLUTION: The central managing device 1 decides the quantity of reuse goods and consumable articles, which are required for an operation, and transmits the necessary quantity to a consumable article managing device 2 and a reuse goods managing device 3. The consumable article managing device 2 manages the quantity of stock and properly orders it to a factory 4 so as to prevent the lack of stock. The reuse goods managing device 3 manages the quantity of the reuse goods.



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CLAIMS

[Claim(s)]

[Claim 1] It is the exchange approach of a hospital enterprise and an exchange contractor supplies the called quantity of the reuse article which determined the quantity of a reuse article required for an operation, and an article of consumption, and was this determined before the operation, and an article of consumption to a hospital. After an operation It is the exchange approach of the hospital enterprise which carries out counting of the quantity of the reuse article which collected the supplied reuse articles, sterilized and was supplied, carries out counting of the quantity and is characterized by ordering suitably about the supplied article of consumption.

[Claim 2] It is the operation supply management method which determines the quantity of a reuse article required for an operation, and an article of consumption, and manages the quantity of the this determined reuse article and an article of consumption. The called quantity of an article of consumption required for said operation, Order of this article of consumption is determined based on the stock quantity of said article of consumption registered into the article-of-consumption inventory file which registered the stock quantity of each article of consumption prepared beforehand. It registers with the reuse article inventory file which registered the stock quantity of each reuse article beforehand prepared in the called quantity of a reuse article required for said operation. The residual quantity of the article of consumption which was not used in said operation is registered into said article-of-consumption inventory file. The called quantity of said reuse article which registered into the reuse article inventory file the residual quantity of the reuse article which was not used in said operation, and was registered into said reuse article inventory file. It is the operation supply management method characterized by judging that it is unusual when the total value of the residual quantity of said reuse article registered into said reuse article inventory file and the operating quantity of the reuse article used in said operation is not in agreement.

[Claim 3] While transmitting the called quantity of the reuse article which determined and this determined the quantity of a reuse article required for this operation, and an article of consumption to reuse article management equipment based on the operation plan received with the central-control equipment installed in a hospital It is the operation supply managerial system which transmits the called quantity of said determined article of consumption to article-of-consumption management equipment. Said article-of-consumption management equipment An article-of-consumption called quantity reception means to receive the called quantity of the article of consumption transmitted from said central-control equipment, The article-of-consumption inventory file which registered the stock quantity of each article of consumption, and the called quantity of an article of consumption received with said article-of-consumption called quantity reception means, It has an order decision means to determine order of this article of consumption based on the stock quantity of said article of consumption registered into said article-of-consumption inventory file. Said central-control equipment A residual quantity reception means to receive the residual quantity of the reuse article which was not used in said operation, and an article of consumption, A reuse article residual quantity transmitting means to transmit the residual quantity of the reuse article received with this residual quantity reception means to said reuse article management equipment, It has an article-of-consumption residual quantity transmitting means to transmit the residual quantity of the article of consumption received with said residual quantity reception means to said article-of-consumption management equipment. Said article-of-consumption management equipment It has further an article-of-consumption residual quantity registration means to register into said article-of-consumption inventory file the residual quantity of the article of consumption transmitted by said article-of-consumption residual quantity transmitting means. Said reuse article management equipment The reuse article inventory file which registered the stock quantity of each reuse article, and a reuse article called quantity registration means to register into said reuse article inventory file the called quantity of the reuse article transmitted from said central-control equipment, A reuse article residual quantity registration means to register into said reuse article inventory file the residual quantity of the reuse article transmitted by said reuse article

residual quantity transmitting means, An operating quantity reception means to receive the operating quantity of the reuse article used in said operation, The called quantity of the reuse article registered into said reuse article inventory file, and the operating quantity of said reuse article received with said operating quantity reception means, And a comparison means to compare the total value of the residual quantity of said reuse article registered into said reuse article inventory file, As a result of this comparison means' comparing, it is the operation supply managerial system characterized by having further an abnormality signal output means to output an abnormality signal when the called quantity of said reuse article and the total value of operating quantity and residual quantity are not in agreement.

[Claim 4] The reference-value file which registered the reference value which hits judging whether said central-control equipment has the proper residual quantity of the operation supply containing a reuse article and an article of consumption for every operation supply, The operation name-operation supply correlation file which registered the called quantity of the operation supply containing a reuse article and an article of consumption required for an operation according to the class of operation, A reference-value comparison means to compare the residual quantity of the operation supply received with said residual quantity reception means with the reference value of said operation supply registered into said reference-value file, It is the operation supply managerial system according to claim 3 characterized by having further a modification means to change the called quantity of said operation supply registered into said operation name-operation supply correlation file when the residual quantity of said operation supply exceeds a reference value, as a result of this reference-value comparison means' comparing.

[Claim 5] The claim article-of-consumption file which registered the claim article of consumption with which said article-of-consumption management equipment is set as the object of insurance claim among articles of consumption, A use squaring means to compute the operating quantity of said article of consumption by subtracting the residual quantity of said article of consumption transmitted by said article-of-consumption residual quantity transmitting means from the called quantity of the article of consumption received with said article-of-consumption called quantity reception means, The operation supply managerial system according to claim 3 or 4 characterized by having further an extract means to extract the operating quantity of the claim article of consumption registered into said claim article-of-consumption file from the operating quantity of the article of consumption computed with this use squaring means.

[Claim 6] It has further the automatic inventory storage warehouse which classifies each article of consumption and has been contained and which outputs the count of closing motion of the lid of a housing to said central-control equipment as operating quantity of each article of consumption, Said central-control equipment An operating quantity storage means to memorize the operating quantity of each article of consumption outputted from said automatic inventory storage warehouse, The auxiliary claim article-of-consumption file which registered the claim article of consumption set as the object of insurance claim among articles of consumption, The operation supply managerial system according to claim 3 to 5 characterized by having further an auxiliary extract means to extract the operating quantity of the claim article of consumption registered into said auxiliary claim article-of-consumption file from the operating quantity of the article of consumption memorized with said operating quantity storage means.

[Claim 7] An article-of-consumption called quantity reception means to be article-of-consumption management equipment which manages the quantity of the article of consumption used for an operation, and to receive the called quantity of the article of consumption transmitted from the outside, The article-of-consumption inventory file which registered the stock quantity of each article of consumption, and the called quantity of an article of consumption received with said article-of-consumption called quantity reception means, Article-of-consumption management equipment characterized by having an order decision means to determine order of this article of consumption based on the stock quantity of said article of consumption registered into said article-of-consumption inventory file, and an article-of-consumption residual quantity registration means to register into said article-of-consumption inventory file the residual quantity of the article of consumption transmitted from the outside.

[Claim 8] Said order decision means is article-of-consumption management equipment according to claim 7 which ** stock quantity of the article of consumption registered into said article-of-consumption inventory file with the called quantity of said article of consumption received with said article-of-consumption called quantity reception means, and is characterized by constituting so that order of this article of consumption may be determined when the value which *(ed) is below a predetermined threshold.

[Claim 9] Said order decision means is article-of-consumption management equipment according to claim 7 which subtracts the called quantity of said article of consumption received with said article-of-consumption called quantity reception means from the stock quantity of the article of consumption registered into said article-of-consumption

inventory file, and is characterized by constituting so that order of this article of consumption may be determined when the reduced value is below a predetermined threshold.

[Claim 10] The claim article-of-consumption file which registered the claim article of consumption set as the object of insurance claim among articles of consumption. A use squaring means to compute the operating quantity of said article of consumption by subtracting the residual quantity of said article of consumption transmitted from the outside from the called quantity of the article of consumption received with said article-of-consumption called quantity reception means. Article-of-consumption management equipment according to claim 7 to 9 characterized by having further an extract means to extract the operating quantity of the claim article of consumption registered into said claim article-of-consumption file from the operating quantity of the article of consumption computed with this use squaring means.

[Claim 11] Based on the operation plan for which it opted, the quantity of a reuse article required for this operation and an article of consumption is determined. A residual quantity reception means to receive the residual quantity of the reuse article which is central-control equipment which manages the quantity of the determined this reuse article and an article of consumption, and was not used in said operation, and an article of consumption. Central-control equipment characterized by having a reuse article residual quantity transmitting means to transmit the residual quantity of the reuse article received with this residual quantity reception means to the exterior, and an article-of-consumption residual quantity transmitting means to transmit the residual quantity of the article of consumption received with said residual quantity reception means to the exterior.

[Claim 12] The reference-value file which registered the reference value which hits judging whether the residual quantity of the operation supply containing a reuse article and an article of consumption is proper for every operation supply. The operation name-operation supply correlation file which registered the called quantity of the operation supply containing a reuse article and an article of consumption required for an operation according to the class of operation. A reference-value comparison means to compare the residual quantity of the operation supply received with said residual quantity reception means with the reference value of said operation supply registered into said reference-value file. It is central-control equipment according to claim 11 characterized by having further a modification means to change the called quantity of said operation supply registered into said operation name-operation supply correlation file when the residual quantity of said operation supply exceeds a reference value, as a result of this reference-value comparison means' comparing.

[Claim 13] The central-control equipment according to claim 11 or 12 carry out having further an auxiliary extract means extract the operating quantity of the claim article of consumption which registered into an operating quantity storage means memorize the operating quantity of each article of consumption outputted from the outside, the auxiliary claim article-of-consumption file which registered the claim article of consumption set as the object of insurance claim among articles of consumption, and said auxiliary claim article-of-consumption file from the operating quantity of the article of consumption which memorized with said operating quantity storage means as the description.

[Claim 14] The reuse article inventory file which manages the quantity of the reuse article used for an operation and which is reuse article management equipment and registered the stock quantity of each reuse article. A reuse article called quantity registration means to register into said reuse article inventory file the called quantity of the reuse article transmitted from the outside. A reuse article residual quantity registration means to register into said reuse article inventory file the residual quantity of the reuse article transmitted from the outside. An operating quantity reception means to receive the operating quantity of the reuse article used in said operation. The called quantity of the reuse article registered into said reuse article inventory file, and the operating quantity of said reuse article received with said operating quantity reception means. And a comparison means to compare the total value of the residual quantity of said reuse article registered into said reuse article inventory file. As a result of this comparison means' comparing, it is reuse article management equipment characterized by having an abnormality signal output means to output an abnormality signal when the called quantity of said reuse article and the total value of operating quantity and residual quantity are not in agreement.

[Claim 15] In the record medium with which the computer program for managing the quantity of the article of consumption which a computer uses for an operation is recorded and in which reading by the computer is possible. An article-of-consumption called quantity reception program code means to make the called quantity of the article of consumption transmitted to said computer from other computers received. A program code means to make an article-of-consumption inventory file register the stock quantity of each article of consumption into said computer. The called quantity of an article of consumption which said computer was made to receive with said article-of-consumption called quantity reception program code means. A program code means to make order of this article of

consumption determine based on the stock quantity of said article of consumption made to register into said article-of-consumption inventory file. The record medium in which reading by the computer characterized by recording the computer program including a program code means to make the residual quantity of the article of consumption transmitted to said computer from the computer besides the above register into said article-of-consumption inventory file is possible.

[Claim 16] A computer determines the quantity of a reuse article required for this operation, and an article of consumption based on the operation plan for which it opted. In the record medium with which the computer program for managing the quantity of the determined this reuse article and an article of consumption is recorded and in which reading by the computer is possible A residual quantity reception program code means to make the residual quantity of the reuse article which was not used for said computer in said operation, and an article of consumption received, A program code means to make the residual quantity of the reuse article made to be received with this residual quantity reception program code means transmit to other computers. The record medium in which reading by the computer characterized by recording the computer program including a program code means to make the residual quantity of the article of consumption made to be received with said residual quantity reception program code means transmit to other computers is possible.

[Claim 17] In the record medium with which the computer program for managing the quantity of the reuse article which a computer uses for an operation is recorded and in which reading by the computer is possible A program code means to make a reuse article inventory file register the stock quantity of each reuse article into said computer, A program code means to make the called quantity of the reuse article transmitted to said computer from other computers register into said reuse article inventory file, A program code means to make the residual quantity of the reuse article transmitted to said computer from the computer besides the above register into said reuse article inventory file, An operating quantity reception program code means to make the operating quantity of the reuse article used for said computer in said operation received, The called quantity of the reuse article which said reuse article inventory file was made to register into said computer, A comparison program code means to make the total value of the operating quantity of said reuse article made to be received with said operating quantity reception program code means, and the residual quantity of said reuse article made to register into said reuse article inventory file compare, As a result of making this comparison program code means compare with said computer, the called quantity of said reuse article, It is the record medium in which reading by the computer characterized by recording the computer program including the program code means to which an abnormality signal is made to output when the total value of operating quantity and residual quantity is not in agreement is possible.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the record medium with which the computer program for operating the exchange approach of the hospital enterprise which supports a hospital enterprise, an operation supply management method and an operation supply managerial system, the article-of-consumption management equipment used for these at a list, central-control equipment, reuse article management equipments, and each of these equipments is recorded by managing the quantity of operation supplies, such as Metz needed in a hospital, and drugs.

[0002]

[Description of the Prior Art] In the hospital which holds many patients, since 1000 or more operations per year are conducted, the management which is in charge of performing an operation becomes important. For example, matters which should be managed, such as reservation of the operation scheduled day, an operation doctor in charge, a nurse, and an operating room and preparation of an operation instrument, are various. The operation plan managerial system which manages the operation conducted in a hospital is realized from this situation in recent years. There is JP,11-85876,A as this operation plan managerial system.

[0003] The contents of JP,11-85876,A are explained below. The technique of managing the information about an operation using a computer is indicated by the official report, when an operation is planned, the symptom of an operation day, a family doctor, and a patient, the technique, and the ingredient to be used are inputted into a computer, and this is registered into it. And the operating room was secured, the schedule of a family doctor and a patient was managed, the supply still more nearly required for an operation was printed out, and the required operation supply was ordered from the operation supply supply section.

[0004]

[Problem(s) to be Solved by the Invention] However, the operation managerial system of the indication to JP,11-85876,A was not what remains for ordering an operation supply and performs stock control of the ordered operation supply. Operation supplies of many classes, such as articles of consumption, such as gauze besides reuse articles, such as Metz and forceps, a suture for an operation, and a chemical, are needed for an operation. The number of these operation supplies must not have lack, and the stock control is very important for it.

[0005] If management of these operation supply is left to a busy medical practitioner or a busy nurse etc., it becomes the hindrance of a smooth medical action and becomes the factor which induces a medical accident. Moreover, when airlifting operation supplies, such as a pacemaker, from overseas, for example, in order for acquisition to take time amount very much, it is necessary to put the stock control into practice. Especially, when a stock control object was an operation supply, it was anxious for construction of the operation supply managerial system for employing an operation smoothly, as a result supporting a hospital enterprise, since an inventory crack may influence a patient's life.

[0006] Moreover, an operation supply has the property that it can divide roughly into reuse articles, such as Metz which can be reused after carrying out sterilization processing, and articles of consumption which will be set as the object of disposal once it uses it, such as gauze and drugs, as above-mentioned. That is, about an article of consumption, while the number decreases at every operation, when it is not used by operation, it has the description that it is available again. Therefore, it can be said that the suitable article of consumption according to the situation of the use or not using it needs to be managed.

[0007] On the other hand, since it was used except for the case where endurance falls, about a reuse article, excess and deficiency did not occur in an inventory and especially stock control was not performed appropriately

conventionally. However, the medical accident sutured leaving forceps etc. in the stomach etc. in a laparotomy in recent years can see. Although based on a medical practitioner's etc. negligence, this medical accident may have been able to be prevented when the management consciousness over the number of inventories of a reuse article of the manager who manages that operation supply was enough.

[0008] Moreover, although an operation supply and its quantity were determined according to the class of that operation when an operation was planned as mentioned above, the quantity of this operation supply determined is determined based on experience, and was not necessarily able to say it as a suitable thing.

[0009] Moreover, if it is in a specific article of consumption, what is set as the object of a claim of a medical insurance exists. Conventionally, the nurse etc. removed the claim label currently stuck on the article of consumption after the operation, and this claim was performed by sticking it on a claim ledger. However, it tended to be avoided from ** burdening a busy nurse etc. with this activity, and it being a complicated activity. There was a problem that insurance claim was not made correctly, from such a situation in a hospital. In order to cause the situation which shakes the management of a hospital as a result of income and outgo's becoming not clear when insurance claim is not performed certainly, it is necessary to manage strictly the article of consumption set as the object of insurance claim.

[0010] Furthermore, in addition to the above-mentioned operation supply prepared beforehand, other operation supplies are prepared for the operating room. These operation supplies are beforehand prepared for the storage warehouse of dedication, and when a certain accident occurs, they take out and use a reuse article or an article of consumption from this storage warehouse. Although it is necessary to also manage correctly the quantity of the article of consumption picked out from this storage warehouse, it is very difficult to carry out counting of that quantity and to manage it in the situation of having become tense at the time of an operation. Furthermore, it is necessary to grasp exactly the operating quantity of the article of consumption set as the object of above-mentioned insurance claim out of the used article of consumption.

[0011] The place which this invention is made in view of this situation, and is made into the purpose While preventing the medical accident by the lack of an inventory of an operation supply by performing stock control about the operation supply which consists of a reuse article and an article of consumption The exchange approach of a hospital enterprise which can support a smooth medical action, an operation supply management method, And it is in offering the record medium with which the computer program for operating an operation supply managerial system, the article-of-consumption management equipment used for these at a list, central-control equipment, reuse article management equipments, and each of these equipments is recorded.

[0012] Moreover, other purposes of this invention are to offer the article-of-consumption management equipment which can order and replace the article of consumption which ran short with suitable timing, when the stock quantity of an article of consumption decreases.

[0013] Moreover, other purposes of this invention are to offer the operation supply managerial system which can optimize the called quantity of the operation supply determined based on an operation plan, and central-control equipment.

[0014] Moreover, other purposes of this invention are to offer the operation supply managerial system which the quantity of the article of consumption set as the object of insurance claim is managed exactly, and can attain clearing of income and outgo, and stabilization of hospital management, and article-of-consumption management equipment.

[0015] Furthermore, other purposes of this invention are to offer the operation supply managerial system which can also manage the operating quantity of the article of consumption set as the object of the insurance claim which manages the operating quantity of the article of consumption picked out from the storage warehouse in emergency, and is generated by the use, and central-control equipment.

[0016]

[Means for Solving the Problem] The exchange approach of the hospital enterprise concerning the 1st invention is the exchange approach of a hospital enterprise. An exchange contractor supplies the called quantity of the reuse article which determined the quantity of a reuse article required for an operation, and an article of consumption, and was this determined before the operation, and an article of consumption to a hospital. After an operation Counting of the quantity of the reuse article which collected the supplied reuse articles, sterilized and was supplied is carried out, and about the supplied article of consumption, counting of the quantity is carried out and it is characterized by ordering suitably.

[0017] If it is in the 1st invention, the exchange contractor who supports a hospital enterprise determines the called quantity of articles of consumption, such as reuse articles, such as Metz required for an operation, and gauze, based

on the operation plan submitted by the doctor in charge. An exchange contractor supplies a required reuse article and a required article of consumption to a called quantity hospital based on this. And stock control is performed about an article of consumption, and it orders suitably so that lack may not arise. On the other hand, about a reuse article, it collects and sterilizes after an operation, and the quantity is managed further. Thus, since a reuse article and an article of consumption required for an operation were supplied to the hospital, it becomes possible for a hospital side to be able to concentrate on an operation more, as a result to reduce a medical accident. Moreover, although the hospital side managed the stock quantity of an article of consumption uniquely and had placed an order with two or more contractors conventionally, since it package-supplies and groups buy and sell orders by the exchange contractor, while the burden by the side of a hospital is mitigated sharply, it becomes possible to reduce management cost. Furthermore, since the exchange contractor was made to collect and sterilize after an operation about reuse articles, such as Metz, a hospital side is released from processing burdens, such as sterilization. And since it was made to carry out thorough management of the stock quantity of a reuse article, it becomes possible to discover the medical accident of leaving Metz etc. in a patient's inside of the body, at an early stage. That is, according to this invention, it becomes possible to aim at the progression in quality in [in a hospital enterprise] medicine, and a cost cut on the financial side.

[0018] The operation supply management method concerning the 2nd invention is an operation supply management method which determines the quantity of a reuse article required for an operation, and an article of consumption, and manages the quantity of the this determined reuse article and an article of consumption. The called quantity of an article of consumption required for said operation, Order of this article of consumption is determined based on the stock quantity of said article of consumption registered into the article-of-consumption inventory file which registered the stock quantity of each article of consumption prepared beforehand. It registers with the reuse article inventory file which registered the stock quantity of each reuse article beforehand prepared in the called quantity of a reuse article required for said operation. The residual quantity of the article of consumption which was not used in said operation is registered into said article-of-consumption inventory file. The called quantity of said reuse article which registered into the reuse article inventory file the residual quantity of the reuse article which was not used in said operation, and was registered into said reuse article inventory file, When the total value of the residual quantity of said reuse article registered into said reuse article inventory file and the operating quantity of the reuse article used in said operation is not in agreement, it is characterized by judging that it is unusual.

[0019] The operation supply managerial system concerning the 3rd invention is based on the operation plan received with the central-control equipment installed in a hospital. Determine the quantity of a reuse article required for this operation, and an article of consumption, and while transmitting the called quantity of the this determined reuse article to reuse article management equipment It is the operation supply managerial system which transmits the called quantity of said determined article of consumption to article-of-consumption management equipment. Said article-of-consumption management equipment An article-of-consumption called quantity reception means to receive the called quantity of the article of consumption transmitted from said central-control equipment, The article-of-consumption inventory file which registered the stock quantity of each article of consumption, and the called quantity of an article of consumption received with said article-of-consumption called quantity reception means. It has an order decision means to determine order of this article of consumption based on the stock quantity of said article of consumption registered into said article-of-consumption inventory file. Said central-control equipment A residual quantity reception means to receive the residual quantity of the reuse article which was not used in said operation, and an article of consumption, A reuse article residual quantity transmitting means to transmit the residual quantity of the reuse article received with this residual quantity reception means to said reuse article management equipment, It has an article-of-consumption residual quantity transmitting means to transmit the residual quantity of the article of consumption received with said residual quantity reception means to said article-of-consumption management equipment. Said article-of-consumption management equipment It has further an article-of-consumption residual quantity registration means to register into said article-of-consumption inventory file the residual quantity of the article of consumption transmitted by said article-of-consumption residual quantity transmitting means. Said reuse article management equipment The reuse article inventory file which registered the stock quantity of each reuse article, and a reuse article called quantity registration means to register into said reuse article inventory file the called quantity of the reuse article transmitted from said central-control equipment. A reuse article residual quantity registration means to register into said reuse article inventory file the residual quantity of the reuse article transmitted by said reuse article residual quantity transmitting means, An operating quantity reception means to receive the operating quantity of the reuse article used in said operation, The called quantity of the reuse article registered into said reuse article inventory file, and the operating quantity of said reuse article

received with said operating quantity reception means. And a comparison means to compare the total value of the residual quantity of said reuse article registered into said reuse article inventory file. As a result of this comparison means' comparing, when the called quantity of said reuse article and the total value of operating quantity and residual quantity are not in agreement, it is characterized by having further an abnormality signal output means to output an abnormality signal.

[0020] The operation supply managerial system concerning the 4th invention is set to the 3rd invention. Said central-control equipment The reference-value file which registered the reference value which hits judging whether the residual quantity of the operation supply containing a reuse article and an article of consumption is proper for every operation supply. The operation name-operation supply correlation file which registered the called quantity of the operation supply containing a reuse article and an article of consumption required for an operation according to the class of operation. A reference-value comparison means to compare the residual quantity of the operation supply received with said residual quantity reception means with the reference value of said operation supply registered into said reference-value file. As a result of this reference-value comparison means' comparing, when the residual quantity of an operation supply exceeds a reference value, it is characterized by having further a modification means to change the called quantity of said operation supply registered into said operation name-operation supply correlation file.

[0021] The operation supply managerial system concerning the 5th invention is set to the 3rd or 4th invention. Said article-of-consumption management equipment The claim article-of-consumption file which registered the claim article of consumption set as the object of insurance claim among articles of consumption. A use squaring means to compute the operating quantity of said article of consumption by subtracting the residual quantity of said article of consumption transmitted by said article-of-consumption residual quantity transmitting means from the called quantity of the article of consumption received with said article-of-consumption called quantity reception means. It is characterized by having further an extract means to extract the operating quantity of the claim article of consumption registered into said claim article-of-consumption file from the operating quantity of the article of consumption computed with this use squaring means.

[0022] The operation supply managerial system concerning the 6th invention is set to the 3rd thru/or the 5th invention. It has further the automatic inventory storage warehouse which classifies each article of consumption and has been contained and which outputs the count of closing motion of the lid of a housing to said central-control equipment as operating quantity of each article of consumption. Said central-control equipment An operating quantity storage means to memorize the operating quantity of each article of consumption outputted from said automatic inventory storage warehouse. The auxiliary claim article-of-consumption file which registered the claim article of consumption set as the object of insurance claim among articles of consumption. It is characterized by having further an auxiliary extract means to extract the operating quantity of the claim article of consumption registered into said auxiliary claim article-of-consumption file from the operating quantity of the article of consumption memorized with said operating quantity storage means.

[0023] An article-of-consumption called quantity reception means for the article-of-consumption management equipment concerning the 7th invention to be article-of-consumption management equipment which manages the quantity of the article of consumption used for an operation, and to receive the called quantity of the article of consumption transmitted from the outside. The article-of-consumption inventory file which registered the stock quantity of each article of consumption, and the called quantity of an article of consumption received with said article-of-consumption called quantity reception means. It is characterized by having an order decision means to determine order of this article of consumption based on the stock quantity of said article of consumption registered into said article-of-consumption inventory file, and an article-of-consumption residual quantity registration means to register into said article-of-consumption inventory file the residual quantity of the article of consumption transmitted from the outside.

[0024] In the 7th invention, the article-of-consumption management equipment concerning the 8th invention is characterized by constituting so that order of this article of consumption may be determined, when said order decision means ** stock quantity of the article of consumption registered into said article-of-consumption inventory file with the called quantity of said article of consumption received with said article-of-consumption called quantity reception means and the value which *(cd) exceeds a predetermined threshold.

[0025] The article-of-consumption management equipment concerning the 9th invention is characterized by constituting said order decision means so that order of this article of consumption may be determined when the called quantity of said article of consumption received with said article-of-consumption called quantity reception means is subtracted from the stock quantity of the article of consumption registered into said article-of-consumption

inventory file and the reduced value exceeds a predetermined threshold in the 7th invention.

[0026] The claim article-of-consumption file which registered the claim article of consumption with which the article-of-consumption management equipment concerning the 10th invention is set as the object of insurance claim among articles of consumption in the 7th thru/or the 9th invention, A use squaring means to compute the operating quantity of said article of consumption by subtracting the residual quantity of said article of consumption transmitted from the outside from the called quantity of the article of consumption received with said article-of-consumption called quantity reception means, It is characterized by having further an extract means to extract the operating quantity of the claim article of consumption registered into said claim article-of-consumption file from the operating quantity of the article of consumption computed with this use squaring means.

[0027] The central-control equipment concerning the 11th invention is based on the operation plan for which it opted. A residual quantity reception means to determine the quantity of a reuse article required for this operation, and an article of consumption, and to receive the residual quantity of the reuse article which is central-control equipment which manages the quantity of the this determined reuse article and an article of consumption, and was not used in said operation, and an article of consumption, It is characterized by having a reuse article residual quantity transmitting means to transmit the residual quantity of the reuse article received with this residual quantity reception means to the exterior, and an article-of-consumption residual quantity transmitting means to transmit the residual quantity of the article of consumption received with said residual quantity reception means to the exterior.

[0028] The reference-value file which registered the reference value which hits judging whether the central-control equipment concerning the 12th invention has the proper residual quantity of the operation supply which contains a reuse article and an article of consumption in the 11th invention for every operation supply, The operation name-operation supply correlation file which registered the called quantity of the operation supply containing a reuse article and an article of consumption required for an operation according to the class of operation, A reference-value comparison means to compare the residual quantity of the operation supply received with said residual quantity reception means with the reference value of said operation supply registered into said reference-value file, As a result of this reference-value comparison means' comparing, when the residual quantity of an operation supply exceeds a reference value, it is characterized by having further a modification means to change the called quantity of said operation supply registered into said operation name-operation supply correlation file.

[0029] The central-control equipment concerning the 13th invention is set to the 11th or 12th invention. An operating quantity storage means to memorize the operating quantity of each article of consumption outputted from the outside, The auxiliary claim article-of-consumption file which registered the claim article of consumption set as the object of insurance claim among articles of consumption, It is characterized by having further an auxiliary extract means to extract the operating quantity of the claim article of consumption registered into said auxiliary claim article-of-consumption file from the operating quantity of the article of consumption memorized with said operating quantity storage means.

[0030] The reuse article inventory file which the reuse article management equipment concerning the 14th invention is reuse article management equipment which manages the quantity of the reuse article used for an operation, and registered the stock quantity of each reuse article, A reuse article called quantity registration means to register into said reuse article inventory file the called quantity of the reuse article transmitted from the outside, A reuse article residual quantity registration means to register into said reuse article inventory file the residual quantity of the reuse article transmitted from the outside, An operating quantity reception means to receive the operating quantity of the reuse article used in said operation, The called quantity of the reuse article registered into said reuse article inventory file, and the operating quantity of said reuse article received with said operating quantity reception means, And a comparison means to compare the total value of the residual quantity of said reuse article registered into said reuse article inventory file, As a result of this comparison means' comparing, when the called quantity of said reuse article and the total value of operating quantity and residual quantity are not in agreement, it is characterized by having an abnormality signal output means to output an abnormality signal.

[0031] The record medium in which reading by the computer concerning the 15th invention is possible In the record medium with which the computer program for managing the quantity of the article of consumption which a computer uses for an operation is recorded and in which reading by the computer is possible An article-of-consumption called quantity reception program code means to make the called quantity of the article of consumption transmitted to said computer from other computers received, A program code means to make an article-of-consumption inventory file register the stock quantity of each article of consumption into said computer, The called quantity of an article of consumption which said computer was made to receive with said article-of-consumption called quantity reception program code means, A program code means to make order of this article of

consumption determine based on the stock quantity of said article of consumption made to register into said article-of-consumption inventory file. It is characterized by recording the computer program including a program code means to make the residual quantity of the article of consumption transmitted to said computer from the computer besides the above register into said article-of-consumption inventory file.

[0032] The record medium in which reading by the computer concerning the 16th invention is possible A computer determines the quantity of a reuse article required for this operation, and an article of consumption based on the operation plan for which it opted. In the record medium with which the computer program for managing the quantity of the determined this reuse article and an article of consumption is recorded and in which reading by the computer is possible A residual quantity reception program code means to make the residual quantity of the reuse article which was not used for said computer in said operation, and an article of consumption received. A program code means to make the residual quantity of the reuse article made to be received with this residual quantity reception program code means transmit to other computers. It is characterized by recording the computer program including a program code means to make the residual quantity of the article of consumption made to be received with said residual quantity reception program code means transmit to other computers.

[0033] The record medium in which reading by the computer concerning the 17th invention is possible In the record medium with which the computer program for managing the quantity of the reuse article which a computer uses for an operation is recorded and in which reading by the computer is possible A program code means to make a reuse article inventory file register the stock quantity of each reuse article into said computer. A program code means to make the called quantity of the reuse article transmitted to said computer from other computers register into said reuse article inventory file. A program code means to make the residual quantity of the reuse article transmitted to said computer from the computer besides the above register into said reuse article inventory file. An operating quantity reception program code means to make the operating quantity of the reuse article used for said computer in said operation received. The called quantity of the reuse article which said reuse article inventory file was made to register into said computer. A comparison program code means to make the total value of the operating quantity of said reuse article made to be received with said operating quantity reception program code means, and the residual quantity of said reuse article made to register into said reuse article inventory file compare. As a result of making this comparison program code means compare with said computer, the called quantity of said reuse article. When the total value of operating quantity and residual quantity is not in agreement, it is characterized by recording the computer program including the program code means to which an abnormality signal is made to output.

[0034] If it is in the 2nd invention, the 3rd invention, the 7th invention, the 11th invention, the 14th invention, or the 17th invention When the doctor in charge and operation name of an operation are determined, the operation supply used in this operation by using a doctor in charge and an operation name as a key is determined. The called quantity of the reuse article concerning this determined operation supply is transmitted to reuse article management equipment from central-control equipment, and the called quantity of an article of consumption is transmitted to article-of-consumption management equipment, respectively. Since the article-of-consumption inventory file which registered the inventory of each article of consumption beforehand was prepared for article-of-consumption management equipment, article-of-consumption management equipment measured the called quantity and stock quantity of an article of consumption which were received, and it judged whether it would be necessary to newly add an article of consumption, and the article of consumption was ordered from works, a supplier company, etc. when required, it becomes possible to prevent the inventory crack of an article of consumption beforehand.

[0035] Moreover, after an operation is conducted, central-control equipment receives the quantity of the reuse article which was not used in the operation, and an article of consumption, and transmits this to reuse article management equipment and article-of-consumption management equipment, respectively. And since article-of-consumption management equipment registered into the article-of-consumption inventory file the residual quantity which was not used in the operation, the stock control of it which also took into consideration the residual quantity of the article of consumption which was not used in the operation becomes possible, and the high order of precision of it is attained more. Although it was difficult to grasp the operating quantity exactly since especially the article of consumption used in the operation was thrown in the container of dedication. since it counts the residual quantity of the article of consumption which appears in the operation supply wagon, without using it in this invention and was made to make a manager input, compared with the case where a used number is counted specially, it becomes possible to, manage the number of articles of consumption with a sufficient precision easy moreover.

[0036] On the other hand, reuse management equipment registers the called quantity of the reuse article into a reuse article inventory file, when it has the reuse article inventory file which manages the stock quantity of each reuse

article and quantity required for an operation is transmitted from central-control equipment. Moreover, when the residual quantity of the reuse article which was not used in the operation from central-control equipment is transmitted, the residual quantity of the reuse article is registered into a reuse article inventory file. And when the used reuse articles put on the instrument table are collected in the reuse article management office for sterilization, a reuse article manager counts the operating quantity for every reuse article, and inputs operating quantity into reuse management equipment. And if the total value of the registered called quantity, and the inputted operating quantity and the registered residual quantity was not in agreement, since it was made to judge that the reuse article was lost according to the abnormal condition, i.e., a certain cause, when a reuse article is lost, it becomes possible to specify the operation used as the lost cause at an early stage. Thus, since the inventory of a reuse article and an article of consumption was managed appropriately, a medical practitioner etc. is enabled to concentrate on a medical action, and it becomes possible [reducing a medical accident sharply as a result].

[0037] If it is in the 8th invention and the 9th invention, it ** or reduces with the called quantity of the article of consumption needed by setting the article of consumption registered into the article-of-consumption inventory file for every article of consumption, and setting the stock quantity of an article of consumption to an operation. And if the value which ** (ed) or reduced value is below a predetermined threshold, it makes it judge that stock quantity is liable to insufficient, and since it was made to make the article of consumption order from works, a supplier company, etc., possibility of causing an inventory crack will decrease sharply, and it will become possible to prevent the situation where articles of consumption run short in implementation of an operation. And by setting a threshold as a suitable value according to the class of article of consumption, the inventory supplement according to the class of article of consumption is attained, and the suitable order to works, a supplier company, etc. is attained.

[0038] If it is in the 4th invention and the 12th invention, it judges whether the residual quantity of the operation supply containing the reuse article and article of consumption which were received is a suitable value. In the decision, the reference-value file which registered the reference value which hits judging whether the residual quantity of an operation supply is proper for every operation supply is prepared beforehand, and it compares with the received residual quantity. And since the called quantity of the operation name-operation supply correlation file which has registered the called quantity of an operation supply beforehand according to the class of operation was changed when the residual quantity of an operation supply exceeded a reference value, as a result of comparing, a standardization of the called quantity needed in an operation can be attained, and the precision of the stock control of an operation supply will improve further.

[0039] If it is in the 5th invention and the 10th invention, the claim article-of-consumption file which registered the class of article of consumption set as the object of insurance claim is prepared beforehand. And the operating quantity of the article of consumption used in the operation is computed by subtracting residual quantity from the called quantity of the received article of consumption. And since the operating quantity of a claim article of consumption was computed from the operating quantity of an article of consumption with reference to the claim article-of-consumption file, the quantity of the article of consumption set as the object of insurance claim can be grasped correctly, and it becomes possible to attain clear-izing of income and outgo, and stabilization of hospital management.

[0040] If it is in the 6th invention and the 13th invention, each article of consumption is classified and contained in the housing of an automatic inventory storage warehouse. This well-known automatic inventory storage warehouse outputs the operating quantity of each article of consumption by the count of closing motion of the lid of a housing, and memorizes the operating quantity of each of this outputted article of consumption. Moreover, the auxiliary claim article-of-consumption file which registered also into central-control equipment the class of claim article of consumption set as the object of insurance claim is prepared beforehand. And since the operating quantity of an auxiliary claim article of consumption was extracted from the operating quantity of an article of consumption with reference to the auxiliary claim article-of-consumption file, the quantity of the article of consumption set as the object of insurance claim can be grasped correctly, and it becomes possible to attain clear-izing of income and outgo, and stabilization of hospital management. Moreover, it becomes possible to fill up the article of consumption which should be filled up without excess and deficiency from it becoming possible to grasp exactly the operating quantity of the article of consumption contained in the automatic inventory storage warehouse used in the operation.

[0041]

[Embodiment of the Invention] One or less gestalt this invention of operation is explained in full detail based on the drawing in which the gestalt of the operation is shown. Drawing_1 is the mimetic diagram showing the operation supply managerial system concerning this invention. In drawing, 1 is central-control equipment which generalizes

preparation of an operation supply and stock control. Central-control equipment 1 determines articles of consumption, such as reuse articles, such as Metz required for an operation, and gauze, and drugs, and the quantity of those based on the operation plan which the medical practitioner in charge submitted. About the called quantity of an article of consumption required for an operation, it is transmitted to the article-of-consumption management equipment 2 connected through a communication network N. Article-of-consumption management equipment 2 had article-of-consumption inventory file 25a, such as a hard disk, and has registered the stock quantity of each article of consumption etc.

[0042] Since disposal of the article of consumption used by operation is carried out, stock quantity decreases, and order is suitably performed to works 4, a supplier company, etc. who manufacture the works 4 which manufacture gauze, a suture, a suture needle, etc., or drugs in that case (in addition, below, the works which manufacture gauze etc., the works which manufacture drugs, and a supplier company are called works 4). It is transmitted to the reuse article management equipment 3 similarly connected through a communication network N on the other hand about the called quantity of a reuse article required for an operation. Reuse article management equipment 3 had reuse article inventory file 35a, such as a hard disk, and has registered the stock quantity of each reuse article etc. After operation termination, reuse articles are collected and are reused by performing sterilization processing.

[0043] Drawing 2 is the block diagram showing the hardware configuration of central-control equipment 1. In drawing, 16 is the communications departments, such as a router which transmits and receives information between the article-of-consumption management equipment 2 and the reuse article management equipment 3 which are connected through a communication network N by directions of MPU11. Moreover, when an operation plan is told by the medical practitioner etc., the manager (henceforth a central-control person) of the central-control equipment 1 which is an exchange contractor's constituent inputs operation plan data, such as an operation day, a doctor in charge, and an operation name, from the input sections 13, such as a keyboard. The contents are displayed on the displays 14, such as CRT or a liquid crystal display, in the case of an input.

[0044] Drawing 3 is the explanatory view showing the input screen of an operation plan. As shown in drawing, an operation day, time amount, an operating room, a name of patient, an operation name, an operating medical practitioner, etc. are inputted from the input section 13. The inputted data are memorized by operation planned file 15a of the storage sections 15, such as a back hard disk temporarily stored in RAM12.

[0045] An operation supply required for an operation and its quantity are registered into operation name-operation supply correlation file 15b. Operation supplies are articles of consumption, such as reuse articles, such as Metz, and gauze, and drugs, and quantity respectively required for each operation is registered. As for operation name-operation supply correlation file 15b, it is possible for a central-control person to input data from the input section 13, and to change the contents suitably. Moreover, since the supply used for an operation by the operating medical practitioner who performs an operation differs from its called quantity, the quantity of the operation supply according to an operating medical practitioner is registered into operation name-operation supply correlation file 15b.

[0046] If a need matter is inputted in the input screen in drawing 3 and a decision carbon button is clicked, while MPU11 will use an operation name and an operating medical practitioner as a key, searching operation name-operation supply correlation file 15b and memorizing the quantity of an operation supply required for the operation concerned, i.e., the quantity of a reuse article, and the quantity of an article of consumption to operation planned file 15a, the contents are displayed to a display 14.

[0047] Drawing 4 is an explanatory view which displays the called quantity of an operation supply. An article-of-consumption name and its called quantity are displayed on a reuse name of article and its called quantity, and a list as shown in drawing. In addition, from the input section 13, the central-control person is possible for adding a reuse article and an article of consumption required for others, and can fluctuate such called quantity if needed similarly. And when a central-control person clicks a decision carbon button, the called quantity of a reuse article is transmitted to reuse article management equipment 3, and the called quantity of an article of consumption is transmitted to article-of-consumption management equipment 2, respectively. In addition, it is related with the reuse article code for identifying each reuse article, and is transmitted, and the called quantity of a reuse article is similarly associated and transmitted to an article-of-consumption code for the called quantity of an article of consumption to also identify each article of consumption. Below, when transmitting quantity, these reuse article codes and an article-of-consumption code shall also be transmitted to coincidence.

[0048] Drawing 5 is the explanatory view showing the screen which inputs the residual quantity of the operation supply after an operation. When an operation is completed, a central-control person counts the residual quantity of the reuse article which appears in the operation supply wagon, and an article of consumption, and inputs each

residual quantity by the input section 13. The inputted data are matched with an operation plan code, and are registered into after [an operation] management file 15c. It is transmitted to reuse article management equipment 3, and the residual quantity of the registered reuse article is registered into reuse article inventory file 35a. Moreover, it is transmitted to article-of-consumption management equipment 2, and the residual quantity of the registered article of consumption is registered into article-of-consumption inventory file 25a.

[0049] Drawing 6 is the block diagram showing the hardware configuration of article-of-consumption management equipment 2. In drawing, 26 is the communications departments, such as a router which transmits and receives information between the central-control equipment 1 connected through a communication network N by directions of MPU21. Moreover, article-of-consumption inventory file 25a which registered the number of inventories of an article of consumption is prepared in the storage sections 25, such as a hard disk of article-of-consumption management equipment 2. After the called quantity and residual quantity of an article of consumption which were transmitted from central-control equipment 1 are temporarily stored in RAM22, they are registered into article-of-consumption inventory file 25a, respectively. These contents of registration can be displayed on the displays 24, such as CRT or a liquid crystal display, when the manager (henceforth an article-of-consumption manager) of the article-of-consumption management equipment 2 which is an exchange contractor's constituent operates the input sections 23, such as a keyboard.

[0050] Drawing 7 is the explanatory view showing the database structure of article-of-consumption inventory file 25a. As shown in drawing, it matches with an article of consumption, and the stock quantity of each article of consumption is registered. Moreover, when the threshold for determining the timing which places an order for an article of consumption with works 4 is registered and the called quantity of an article of consumption is transmitted from central-control equipment 1, registered stock quantity is $^{**}(\text{ed})$ with called quantity. And if the value is below a registered threshold, it will judge that it runs short and will place an order for the article of consumption with works 4. For example, about "silk thread (60cmx10 set)" of a suture, stock quantity is "85" individuals, called quantity is "5" (refer to drawing 4), and the value which $^{**}(\text{ed})$ is set to "17" and is below a threshold "20." Therefore, "silk thread (60cmx10 set)" serves as a candidate for order to works 4. The article of consumption which gave the slash of drawing serves as a candidate for order. In addition, this threshold can be suitably changed by the article-of-consumption manager by the input section 23.

[0051] Moreover, called quantity is subtracted from stock quantity, and with [the value] a threshold [below], you may make it order, although it judged whether stock quantity would be $^{**}(\text{ed})$ with called quantity, and the value and threshold which $^{**}(\text{ed})$ would be compared and ordered in the above-mentioned example. For example, about an article of consumption "Ox suture needle", since stock quantity "27" and called quantity are "8" (refer to drawing 4), a difference is set to "19." Since the threshold is set up with "20", an article of consumption "Ox suture needle" is set as the object of order to works 4. In addition, the date ordered from last time is registered into article-of-consumption inventory file 25a.

[0052] After judging the existence of the article-of-consumption order mentioned above, the called quantity transmitted from central-control equipment 1 is reduced and registered from stock quantity. For example, about an article of consumption "silk thread (50cmx10 set)", called quantity "3" (refer to drawing 4) is subtracted from the original stock quantity "350", and stock quantity is registered as "347."

[0053] On the other hand, when an operation is completed and the number of ** is in an article of consumption, the residual quantity of an article of consumption is transmitted to article-of-consumption management equipment 2 from central-control equipment 1. Article-of-consumption management equipment 2 receives the residual quantity of an article of consumption, and registers it into article-of-consumption inventory file 25a. Specifically, the residual quantity of the article of consumption received to the stock quantity of an article of consumption is added. For example, about an article of consumption "silk thread (50cmx10 set)", the residual quantity "1" (refer to drawing 5) of the article of consumption received to the original stock quantity "347" is added, and it registers with stock quantity "348." The stock control which also took into consideration by this the number of the articles of consumption which were not used in the operation becomes possible.

[0054] Drawing 8 is the block diagram showing the hardware configuration of reuse article management equipment 3. In drawing, 36 is the communications departments, such as a router which transmits and receives information between the central-control equipment 1 connected through a communication network N by directions of MPU31. Moreover, reuse article inventory file 35a which registered the number of inventories of a reuse article is prepared in the storage sections 35, such as a hard disk of reuse article management equipment 3. After the called quantity and residual quantity of a reuse article which were transmitted from central-control equipment 1 are temporarily stored in RAM32, they are registered into reuse article inventory file 35a, respectively. These contents of

registration can be displayed on the displays 34, such as CRT or a liquid crystal display, when the manager (henceforth a reuse article manager) of the reuse article management equipment 3 which is an exchange contractor's constituent operates the input sections 33, such as a keyboard.

[0055] The reuse article used in the operation is kept after being collected and sterilized by the sterilization room in which it is put on an instrument table and reuse article management equipment 3 is installed after that. The number is checked by the reuse article manager and the collected used reuse article inputs the checked number from the input section 33 for every reuse article by him. The inputted data are registered into reuse article inventory file 35a.

[0056] Drawing 9 is the explanatory view showing the database structure of reuse article inventory file 35a. As shown in drawing, it matched with the reuse article at reuse article inventory file 35a, and stock quantity is registered, respectively. This MPU31 subtracts called quantity from stock quantity, when called quantity is transmitted from central-control equipment 1. And when an operation is finished and residual quantity is transmitted from central-control equipment 1, residual quantity is added to the reduced value. Furthermore, when used reuse articles are collected at a sterilization room and a reuse article manager inputs operating quantity, operating quantity is further added to the added value.

[0057] Such called quantity, residual quantity, and operating quantity are matched with an operation plan code, and are registered for every operation. MPU31 stores the called quantity registered into reuse article inventory file 35a, residual quantity, and the received operating quantity in RAM32, respectively, when operating quantity is inputted by the input section 33. And it judges whether the total value of residual quantity and operating quantity is in agreement with called quantity.

[0058] A reuse article is altogether reused by carrying out sterilization processing, and the number is in agreement if normal. This judgment is made about all the reuse article used for the operation. And since the reuse article may have been lost according to a certain cause when it was judged that it is not in agreement, MPU31 displays that the abnormal condition occurred on a display 34. For example, about the reuse article "an intestinal clamp (form: direct)", from central-control equipment 1, the residual quantity after "2" and an operation "1" is transmitted, and called quantity is memorized. However, a used reuse article "an intestinal clamp (form: direct)" is not carried into a sterilization room, but a reuse article manager inputs it as operating quantity "0." In this case, it becomes possible to judge easily that the inequality arose in the quantity of a reuse article and the abnormality situation occurred.

[0059] Drawing 10 and drawing 11 are flow charts which show the procedure between central-control equipment 1 and article-of-consumption management equipment 2. First, a central-control person inputs an operation plan from the input section 13 (step S101). MPU11 determines the quantity of a reuse article required for an operation, and an article of consumption with reference to operation name-operation supply correlation file 15b (step S102). The contents are memorized by operation planned file 15a, and the called quantity of an article of consumption is transmitted to article-of-consumption management equipment 2 (step S103).

[0060] The called quantity of the transmitted article of consumption is received in the communications department 26. (Step S104) And MPU21 determines order of an article of consumption based on the stock quantity and called quantity of an article of consumption which were registered into article-of-consumption inventory file 25a (steps S105 and A). In addition, about this decision approach, it mentions later. And MPU21 registers the received called quantity into article-of-consumption inventory file 25a. The called quantity of the article of consumption is subtracted from the stock quantity of the specifically registered article of consumption (step S111).

[0061] And when an operation is completed and the residual quantity of a reuse article and the residual quantity of an article of consumption are inputted by the central-control person from the input section 13, MPU11 receives the residual quantity (step S112), and transmits the residual quantity of an article of consumption to article-of-consumption management equipment 2 (step S113). MPU21 of article-of-consumption management equipment 2 registers the residual quantity into article-of-consumption inventory file 25a, when the residual quantity of an article of consumption is transmitted (step S114). Residual quantity is applied to the stock quantity specifically registered into article-of-consumption inventory file 25a.

[0062] Drawing 12 is a flow chart which shows the procedure of order decision processing. MPU21 reduces the called quantity ** (ed) or received from the stock quantity of an article of consumption with the called quantity which received the stock quantity of the article of consumption registered into article-of-consumption inventory file 25a (step S121). And it judges whether the value which ** (ed), or the reduced value is smaller than the threshold defined beforehand (step S122). An order decision is made noting that YES) and an inventory at the (step S122 are insufficient, when it is judged that it is smaller than a threshold (step S123).

[0063] Quantity, time for delivery, etc. of a required article of consumption are transmitted to the terminal unit with which works 4 and 4 -- do not illustrate order of an article of consumption through a communication network N

from MPU21. On the other hand, when the value which ******(cd), or the reduced value is larger than a threshold, NO) and order are not performed at the (step S122 (step S124). The above processing is performed about all the articles of consumption to which it was transmitted from central-control equipment 1. In addition, what is necessary is not to necessarily restrict to this approach and just to determine order by the proper approach, although [with the gestalt of this operation / stock quantity / called quantity] reduced [**** or].

[0064] Drawing 13 and drawing 14 are flow charts which show the procedure between central-control equipment 1 and reuse article management equipment 3. Since drawing 10 already described processing of step S101 and step S102, it omits. When the called quantity of a reuse article is determined by step S102, the called quantity of a reuse article is transmitted to reuse article management equipment 3 (step S131). The called quantity of the transmitted reuse article is registered into reuse article inventory file 35a for every reuse article (step S132). And when the residual quantity of a reuse article is received by step S112 (refer to drawing 11) which the operation finished and mentioned above, MPU11 transmits the residual quantity of a reuse article to reuse article management equipment 3 (steps S133 and B).

[0065] MPU31 which received the residual quantity of a reuse article registers the residual quantity of a reuse article into reuse article inventory file 35a (step S140). After operation termination, a reuse article manager is used in an operation and collects the used reuse articles put on the instrument table (step S141). And when the operating quantity of the used reuse article is imputed by the reuse article manager from the input section 33, MPU31 receives operating quantity (step S142), and stores operating quantity in RAM32 temporarily. And MPU31 compares the total value of the called quantity registered into reuse article inventory file 35a, and the operating quantity stored in residual quantity and RAM32 (step S143).

[0066] Since YES) and reuse articles are certainly collected at the (step S144 when the called quantity of a reuse article and the total value of residual quantity and operating quantity are in agreement as a result of comparing, sterilization processing of the reuse article is done by the reuse article manager (step S145), and it is kept in a warehouse (step S146). On the other hand, when it is judged that it is not in agreement (it is NO at step S144), it is judged as what ***** lost according to a certain cause, and MPU31 outputs an abnormality signal (step S147). An abnormality signal is outputted to the display 34 of reuse article management equipment 3, and that is displayed on a display 34 (step S148). Moreover, an abnormality signal may be outputted to central-control equipment 1, and that is displayed on the display 14 of central-control equipment 1 in that case (step S149).

[0067] Gestalt 2 drawing 15 of operation is the block diagram showing the hardware configuration of the central-control equipment 1 concerning the gestalt 2 of operation. Reference-value file 15d which registered the reference value which hits judging whether the residual quantity of the operation supply containing a reuse article and an article of consumption is proper for every operation supply is prepared in the storage section 15. Moreover, as for operation name-operation supply correlation file 15b stated with the gestalt 1 of operation, an operation supply required for an operation and its quantity are registered. Drawing 16 is the explanatory view showing the database structure of operation name-operation supply correlation file 15b, and drawing 17 is the explanatory view showing a reference-value file 15d database structure.

[0068] As shown in drawing 16, the called quantity of a reuse article required for an operation and an article of consumption is registered as a default, respectively. In the example of drawing, the operation supply which needs an operation name about a "total gastrectomy way" is registered. The operation supply respectively required also about other operations is registered. The reference value which hits judging whether the residual quantity of the operation supply containing a reuse article and an article of consumption is proper is registered into drawing 17. According to the class of operation, a central-control person inputs this reference value suitably from the input section 13. Since the called quantity of the operation supply registered as a default is superfluous when exceeding the reference value which the residual quantity after an operation registered, MPU11 performs processing which changes the called quantity of a superfluous operation supply. Modification which is called quantity (refer to drawing 16) multiplies by it and changes a predetermined value (for example, 0.8th grade) into the registered called quantity, and should just re-register it into it, for example.

[0069] Drawing 18 is the explanatory view showing the screen which inputs the residual quantity of the operation supply after the operation concerning the gestalt 2 of operation. As shown in drawing, about an article of consumption "rose gauze", residual quantity is "7", and it is over the reference value "6." In this case, MPU11 changes the called quantity of rose gauze into "8" from "10", and registers the called quantity after that modification into operation name-operation supply correlation file 15b. By this, the called quantity of the operation supply determined based on an operation plan will converge to quantity required for reality.

[0070] Drawing 19 is the explanatory view showing the screen which inputs the residual quantity and ullage of an

operation supply after the operation concerning the gestalt 2 of operation. Although the residual quantity of each operation supply explained the case of being superfluous, as above-mentioned, it is also considered that operation supplies run short. When lack of an operation supply occurs, a central-control person inputs residual quantity "-1", as shown in drawing 19. For example, about a reuse article "intestines Bella (format: 30cm)", one of the quantity of the is insufficient. In this case, MPU11 changes intestines Bella's (format: 30cm) called quantity into "3" from "2", and you may make it register the called quantity after that modification into operation name-operation supply correlation file 15b.

[0071] Drawing 20 and drawing 21 are flow charts which show the procedure of called quantity modification processing of the operation supply concerning the gestalt 2 of operation. When an operation is completed and the residual quantity of a reuse article and the residual quantity of an article of consumption (henceforth an operation supply) are inputted by the central-control person from the input section 13, MPU11 receives the residual quantity (step S112). In addition, this processing is as the gestalt 1 of operation having described. And MPU11 compares the residual quantity and the reference value of an operation supply with reference to reference-value file 15d (step S201). As a result of comparing, when residual quantity exceeds a reference value, or it multiplies by the suitable values (for example, 0.8 etc.) for the called quantity of the operation supply registered into YES) and operation name-operation supply correlation file 15b at the (step S202, a suitable value is reduced and called quantity is changed (steps S203 and C). And the called quantity after the modification is registered into operation name-operation supply correlation file 15b. In addition, when residual quantity does not exceed a reference value, at the (step S202, the contents are not changed noting that NO) and the called quantity registered are proper, but it shifts to the next processing (C).

[0072] Then, it judges whether MPU11 has less inputted residual quantity than 0, and whether the quantity of the operation supply ran short in the comparison, i.e., an operation, (step S211). As a result of comparing, when residual quantity is smaller than 0, or it multiplies by the suitable value for the called quantity of the operation supply registered into YES) and operation name-operation supply correlation file 15b at the (step S211 (for example, 1.1 etc.), a suitable value is applied and called quantity is changed (step S212). And the called quantity after the modification is registered into operation name-operation supply correlation file 15b. In addition, at the (step S211, when residual quantity is zero or more, the contents are not changed noting that NO) and the called quantity registered are proper. Deed processing is ended to all the operation supplies registered into operation name-operation supply correlation file 15b in the above processing.

[0073] The gestalt 2 of this operation is considered as the configuration like ****, since other configurations and operations are the same as that of the gestalt 1 of operation, the same reference number is given to a corresponding part, and the detailed explanation is omitted.

[0074] Gestalt 3 drawing 22 of operation is the block diagram showing the hardware configuration of the article-of-consumption management equipment 2 concerning the gestalt 3 of operation. As shown in drawing, claim article-of-consumption file 25b which registered the claim article of consumption set as the object of insurance claim among articles of consumption is prepared in the storage section 25. Drawing 23 is the explanatory view showing the database structure of claim article-of-consumption file 25b. The claim article of consumption set as the object of insurance claim according to the class of operation is registered as shown in drawing. An article-of-consumption manager performs registration to claim article-of-consumption file 25b from the input section 23. In drawing 23, the claim article of consumption "a knee-joint permutation set (implant)" set as the object of insurance claim in an operation "total knee replacement", "balloon catheter (with sensor) 16Fr", a "urine drainage set", etc. are registered. [0075] MPU21 computes the operating quantity of an article of consumption by subtracting the residual quantity of the article of consumption similarly transmitted after the operation from the called quantity of the article of consumption transmitted to article-of-consumption management equipment 2 before the operation from central-control equipment 1. And while extracting the operating quantity of the claim article of consumption set as the object of insurance claim with reference to claim article-of-consumption file 25b and memorizing in the storage section 25, it displays on a display 24. Drawing 24 is the explanatory view showing the claim article-of-consumption quantity menu displayed on the display 24.

[0076] As shown in drawing 24, the operating quantity of each claim article of consumption is displayed (shadow area of drawing 24). In this example, the claim quantity of "1" and a "urine drainage set" becomes [the claim quantity of a claim article of consumption "a knee-joint permutation set (implant)" / the claim quantity of "2" and "balloon catheter (with sensor) 16Fr"] "1" -- in this operation. Drawing 25 is the explanatory view showing the claim quantity of a monthly claim article of consumption etc. MPU21 accumulates the claim quantity of the extracted claim article of consumption in the storage section 25. And it is also possible to output the claim article of

consumption exhausted in one month as shown in drawing, and claim quantity as the bill of particulars to a display 24 or the printing section which is not illustrated. In addition, you may make it display or print claim mark, the amount billed, the total claim mark for one month, and the total amount billed.

[0077] Drawing 26 is a flow chart which shows the procedure of quantity management processing of the claim article of consumption concerning the gestalt 3 of operation. MPU21 of article-of-consumption management equipment 2 receives the called quantity of the article of consumption transmitted before an operation from central-control equipment 1 (step S104). In addition, this processing is as the gestalt 1 of operation having described. And when the residual quantity of an article of consumption is transmitted to article-of-consumption management equipment 2 from central-control equipment 1 by step S113 after an operation, MPU21 receives this residual quantity (step S261), and it computes operating quantity by subtracting residual quantity from the called quantity of the received article of consumption (step S262). After following all the transmitted articles of consumption in this processing, with reference to claim article-of-consumption file 25b, the operating quantity of a claim article of consumption is extracted from the operating quantity of an article of consumption (step S263). The operating quantity of the extracted claim article of consumption is memorized by the storage section 25 (step S264).

[0078] The gestalt 3 of this operation is considered as the configuration like ****, since other configurations and operations are the same as that of the gestalt 1 of operation, and the gestalt 2 of operation, the same reference number is given to a corresponding part, and the detailed explanation is omitted.

[0079] Gestalt 4 drawing 27 of operation is the mimetic diagram showing the operation supply managerial system of this invention concerning the gestalt 4 of operation, and drawing 28 is the block diagram showing the hardware configuration of the automatic inventory storage warehouse 5. The automatic inventory storage warehouse 5 shown in drawing 27 is well-known, an article of consumption is contained to a housing for every article of consumption, and the operating quantity of each article of consumption is recognized by carrying out counting of the count which opens and closes the lid of the housing. The automatic inventory storage warehouse 5 is connected to central-control equipment 1 by the cable or wireless. In drawing 28, 52 is the detection section which detects closing motion of a housing and outputs the code number of the article of consumption of a housing to MPU51. MPU51 memorizes the code number and the detected count of an article of consumption outputted from the detection section 52 in the storage section 54. MPU51 transmits the operating quantity of each article of consumption after an operation from the communications department 53 which transmits and receives central-control equipment 1 and information.

[0080] Drawing 29 is the block diagram showing the hardware configuration of the central-control equipment 1 concerning the gestalt 4 of operation. Auxiliary claim article-of-consumption file 15e which registered the claim article of consumption set as the object of insurance claim among articles of consumption is prepared in the storage section 15. In addition, since the contents of auxiliary claim article-of-consumption file 15e are the same as that of claim article-of-consumption file 25b, the detail is omitted. Moreover, MPU11 of central-control equipment 1 memorizes the operating quantity outputted from the automatic inventory storage warehouse 5 in 15f of operating quantity storage sections of the storage section 15.

[0081] Drawing 30 is the explanatory view showing the database structure of 15f of operating quantity storage sections. The operating quantity of the article of consumption outputted from the automatic inventory storage warehouse 5 is memorized as shown in drawing. MPU11 extracts the operating quantity of the claim article of consumption set from the operating quantity of the article of consumption memorized by 15f of operating quantity storage sections as the object of insurance claim with reference to auxiliary claim article-of-consumption file 15e. In addition, the operating quantity of the extracted claim article of consumption is memorized by the storage section 15. This point is as the gestalt 3 of operation having described.

[0082] Drawing 31 is a flow chart which shows the operating quantity of the article of consumption concerning the gestalt 4 of operation, and the procedure of operating quantity management processing of a claim article of consumption. First, when a medical practitioner etc. picks out an article of consumption from the automatic inventory storage warehouse 5, the detection section 52 outputs the article-of-consumption code used to MPU51 (step S311). MPU51 memorizes the operating quantity of an article of consumption in the storage section 54 based on the outputted article-of-consumption code (step S312). And MPU51 transmits the operating quantity of each article of consumption memorized in the storage section 54 to central-control equipment 1 after operation termination (step S313).

[0083] MPU11 of central-control equipment 1 memorizes the operating quantity of the article of consumption transmitted from the automatic inventory storage warehouse 5 in 15f of operating quantity storage sections (step S314). And MPU11 extracts the operating quantity of a claim article of consumption from the operating quantity of

an article of consumption with reference to auxiliary claim article-of-consumption file 15e (step S315). And the operating quantity of the extracted claim article of consumption is memorized in the storage section 15 (step S316). Thereby, the operating quantity of the article of consumption used in the automatic inventory storage warehouse 5 can grasp correctly, and the period which stores an article of consumption required for a next operation in the automatic inventory storage warehouse 5 becomes possible [being shortened sharply]. And since the quantity can grasp correctly also about the claim article of consumption set as the object of the insurance claim used from the automatic inventory storage warehouse 5, it becomes possible to raise clear-ization of the income and outgo of a hospital more.

[0084] The gestalt 4 of this operation is considered as the configuration like ****, since other configurations and operations are the same as that of the gestalt 1 of operation thru/or the gestalt 3 of operation, the same reference number is given to a corresponding part, and the detailed explanation is omitted.

[0085] Gestalt 5 drawing 32 of operation is the mimetic diagram showing the hardware configuration for realizing the operation supply managerial system concerning the gestalt 5 of operation. The computer program for performing the central-control equipment 1 concerning the gestalt 1 of operation can also be provided [pre-installing in central-control equipment 1 like the gestalt 5 of this operation, and also providing, and] by record-medium 1a of portable molds, such as CD-ROM and MO. Furthermore, it is also possible to make a computer program spread as a subcarrier via a circuit, and to offer it. Below, the contents are explained.

[0086] Record-medium 1a (CD-ROM, MO, or DVD-ROM) the programs which the central-control equipment 1 shown in drawing 32 is made to receive residual quantity, make transmit the residual quantity of a reuse article to it, and the residual quantity of an article of consumption is made to transmit to it were remembered to be is installed in the storage section 15 which central-control equipment 1 does not illustrate. This program is loaded to RAM12 of central-control equipment 1, and is performed. This functions as central-control equipment 1 of above this inventions.

[0087] Moreover, the computer program for performing the article-of-consumption management equipment 2 concerning the gestalt 1 of operation can also be provided [pre-installing in article-of-consumption management equipment 2 like the gestalt 5 of this operation, and also providing, and] by record-medium 2a of portable molds, such as CD-ROM and MO. Furthermore, it is also possible to make a computer program spread as a subcarrier via a circuit, and to offer it. Below, the contents are explained.

[0088] Make the article-of-consumption management equipment 2 shown in drawing 32 receive the called quantity of an article of consumption, make an inventory of an article of consumption register into it, order is made to determine, and record-medium 2a (CD-ROM, MO, or DVD-ROM) the programs into which the residual quantity of an article of consumption is made to register were remembered to be is installed in the storage section 25 which article-of-consumption management equipment 2 does not illustrate. This program is loaded to RAM22 of article-of-consumption management equipment 2, and is performed. This functions as article-of-consumption management equipment 2 of above this inventions.

[0089] Furthermore, the computer program for performing the reuse article management equipment 3 concerning the gestalt 1 of operation can also be provided [pre-installing in reuse article management equipment 3 like the gestalt 5 of this operation, and also providing, and] by record-medium 3a of portable molds, such as CD-ROM and MO. Furthermore, it is also possible to make a computer program spread as a subcarrier via a circuit, and to offer it. Below, the contents are explained.

[0090] The stock quantity of a reuse article is made to register into the reuse article management equipment 3 shown in drawing 32. Make the called quantity of a reuse article register, make the residual quantity of a reuse article register, and operating quantity is made to be received. The total value of called quantity, operating quantity, and residual quantity is made to compare, and when not in agreement, record-medium 3a (CD-ROM, MO, or DVD-ROM) the programs to which an abnormality signal is made to output were remembered to be is installed in the storage section 35 which reuse article management equipment 3 does not illustrate. This program is loaded to RAM32 of reuse article management equipment 3, and is performed. This functions as reuse article management equipment 3 of above this inventions.

[0091] The gestalt 5 of this operation is considered as the configuration like ****, since other configurations and operations are the same as that of the gestalt 1 of operation thru/or the gestalt 4 of operation, the same reference number is given to a corresponding part, and the detailed explanation is omitted.

[0092]

[Effect of the Invention] having explained in full detail above -- if it is in the 1st invention like, the exchange contractor who supports a hospital enterprise determines the called quantity of articles of consumption, such as

reuse articles, such as Metz required for an operation, and gauze, based on the operation plan submitted by the doctor in charge. An exchange contractor supplies the called quantity of a required reuse article and an article of consumption to a hospital based on this. And stock control is performed about an article of consumption, and it orders suitably so that lack may not arise. On the other hand, about a reuse article, it collects and sterilizes after an operation, and the quantity is managed further. Thus, since a reuse article and an article of consumption required for an operation were supplied to the hospital, a hospital side becomes possible [being able to concentrate on an operation more and reducing a medical accident]. Moreover, although the hospital side managed the stock quantity of an article of consumption uniquely and had placed an order with two or more contractors conventionally, since it package-supplies and groups buy and sell orders by the exchange contractor, while the burden by the side of a hospital is mitigated sharply, it becomes possible to reduce management cost. Furthermore, since an exchange contractor collects after an operation and it was made to sterilize about reuse articles, such as Metz, a hospital side is released from processing burdens, such as sterilization. And since it was made to carry out thorough management of the stock quantity of a reuse article, it becomes possible to discover the medical accident of leaving Metz etc. in a patient's inside of the body, at an early stage. That is, according to this invention, it becomes possible to aim at the progression in quality in [in a hospital enterprise] medicine, and a cost cut on the financial side.

[0093] If it is in the 2nd invention, the 3rd invention, the 7th invention, the 11th invention, the 14th invention, or the 17th invention When the doctor in charge and operation name of an operation are determined, the operation supply used in this operation by using a doctor in charge and an operation name as a key is determined. The called quantity of the reuse article concerning this determined operation supply is transmitted to reuse article management equipment from central-control equipment, and the called quantity of an article of consumption is transmitted to article-of-consumption management equipment, respectively. Since the article-of-consumption inventory file which registered the inventory of each article of consumption beforehand was prepared for article-of-consumption management equipment, article-of-consumption management equipment measured the called quantity and stock quantity of an article of consumption which were received, and it judged whether it would be necessary to newly add an article of consumption, and the article of consumption was ordered from works, a supplier company, etc. when required, it becomes possible to prevent the inventory crack of an article of consumption beforehand.

[0094] Moreover, after an operation is conducted, central-control equipment receives the quantity of the reuse article which was not used in the operation, and an article of consumption, and transmits this to reuse article management equipment and article-of-consumption management equipment, respectively. And since article-of-consumption management equipment registered into the article-of-consumption inventory file the residual quantity which was not used in the operation, the stock control of it which also took into consideration the residual quantity of the article of consumption which was not used in the operation becomes possible, and the high order of precision of it is attained more. Although it is difficult, since the residual quantity of the article of consumption which appears in the operation supply wagon, without using it in this invention is counted and it was made to make a central-control person input, it becomes possible [managing the number of articles of consumption with a sufficient precision easy moreover] for especially an article of consumption to be thrown in the container of dedication etc., and to grasp the operating quantity exactly compared with the case where a used number is counted specially.

[0095] On the other hand, reuse management equipment registers the called quantity of the reuse article into a reuse article inventory file, when it has the reuse article inventory file which manages the stock quantity of each reuse article and quantity required for an operation is transmitted from central-control equipment. Moreover, when the residual quantity of the reuse article which was not used in the operation from central-control equipment is transmitted, the residual quantity of the reuse article is registered into a reuse article inventory file. And when the used reuse articles put on the instrument table are collected in the reuse article management office for sterilization, a reuse article manager counts the operating quantity for every reuse article, and inputs operating quantity into reuse management equipment. And if the total value of the registered called quantity, and the inputted operating quantity and the registered residual quantity was not in agreement, since it was made to judge that the reuse article was lost according to the abnormal condition, i.e., a certain cause, when a reuse article is lost, it becomes possible to specify the operation used as the lost cause at an early stage. Thus, since the inventory of a reuse article and an article of consumption was managed appropriately, a medical practitioner etc. is enabled to concentrate on a medical action, and it becomes possible [reducing a medical accident sharply as a result].

[0096] If it is in the 8th invention and the 9th invention, the article of consumption registered into the article-of-consumption inventory file is *(ed) or reduced with the called quantity of the article of consumption for which it is needed in an operation for every article of consumption. And if the value which *(ed) or reduced value is below a

predetermined threshold, it makes it judge that stock quantity is liable to insufficient, and since it was made to make the article of consumption order from works, a supplier company, etc., possibility of causing an inventory crack will decrease sharply, and it will become possible to prevent the situation where articles of consumption run short in implementation of an operation. And this invention can do the outstanding effectiveness so by setting a threshold as a suitable value according to the class of article of consumption -- the inventory supplement according to the class of article of consumption is attained, and the suitable order to works, a supplier company, etc. is attained.

[0097] If it is in the 4th invention and the 12th invention, it judges whether the residual quantity of the operation supply containing the reuse article and article of consumption which were received is a suitable value. In the decision, the reference-value file which registered the reference value which hits judging whether the residual quantity of an operation supply is proper for every operation supply is prepared beforehand, and it compares with the received residual quantity. And since the called quantity of the operation name-operation supply correlation file beforehand registered according to the class of operation was changed when the residual quantity of an operation supply exceeded a reference value, as a result of comparing, a standardization of the called quantity needed in an operation can be attained, and the precision of the stock control of an operation supply will improve further.

[0098] If it is in the 5th invention and the 10th invention, the claim article-of-consumption file which registered the class of article of consumption set as the object of insurance claim is prepared beforehand. And the operating quantity of the article of consumption used in the operation is computed by subtracting residual quantity from the called quantity of the received article of consumption. And since the operating quantity of a claim article of consumption was extracted from the operating quantity of an article of consumption with reference to the claim article-of-consumption file, the quantity of the article of consumption set as the object of insurance claim can be grasped correctly, and it becomes possible to attain clear-izing of income and outgo, and stabilization of hospital management.

[0099] If it is in the 6th invention and the 13th invention, each article of consumption is classified and contained in the housing of an automatic inventory storage warehouse. This well-known automatic inventory storage warehouse outputs the operating quantity of each article of consumption by the count of closing motion of the lid of a housing, and memorizes the operating quantity of each of this outputted article of consumption. Moreover, the auxiliary claim article-of-consumption file which registered also into central-control equipment the class of article of consumption set as the object of insurance claim is prepared beforehand. And since the operating quantity of an auxiliary claim article of consumption was extracted from the operating quantity of an article of consumption with reference to the auxiliary claim article-of-consumption file, the quantity of the article of consumption set as the object of insurance claim can be grasped correctly, and it becomes possible to attain clear-izing of income and outgo, and stabilization of hospital management. Moreover, it becomes possible to fill up the article of consumption which should be filled up without excess and deficiency from it becoming possible to grasp exactly the operating quantity of the article of consumption contained in the automatic inventory storage warehouse used in the operation.

[Translation done.]

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TECHNICAL FIELD

[Field of the Invention] This invention relates to the record medium with which the computer program for operating the exchange approach of the hospital enterprise which supports a hospital enterprise, an operation supply management method and an operation supply managerial system, the article-of-consumption management equipment used for these at a list, central-control equipment, reuse article management equipments, and each of these equipments is recorded by managing the quantity of operation supplies, such as Metz needed in a hospital, and drugs.

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PRIOR ART

[Description of the Prior Art] In the hospital which holds many patients, since 1000 or more operations per year are conducted, the management which is in charge of performing an operation becomes important. For example, matters which should be managed, such as reservation of the operation scheduled day, an operation doctor in charge, a nurse, and an operating room and preparation of an operation instrument, are various. The operation plan managerial system which manages the operation conducted in a hospital is realized from this situation in recent years. There is JP,11-85876,A as this operation plan managerial system.

[0003] The contents of JP,11-85876,A are explained below. The technique of managing the information about an operation using a computer is indicated by the official report, when an operation is planned, the symptom of an operation day, a family doctor, and a patient, the technique, and the ingredient to be used are inputted into a computer, and this is registered into it. And the operating room was secured, the schedule of a family doctor and a patient was managed, the supply still more nearly required for an operation was printed out, and the required operation supply was ordered from the operation supply section.

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EFFECT OF THE INVENTION

[Effect of the Invention] having explained in full detail above -- if it is in the 1st invention like, the exchange contractor who supports a hospital enterprise determines the called quantity of articles of consumption, such as reuse articles, such as Metz required for an operation, and gauze, based on the operation plan submitted by the doctor in charge. An exchange contractor supplies the called quantity of a required reuse article and an article of consumption to a hospital based on this. And stock control is performed about an article of consumption, and it orders suitably so that lack may not arise. On the other hand, about a reuse article, it collects and sterilizes after an operation, and the quantity is managed further. Thus, since a reuse article and an article of consumption required for an operation were supplied to the hospital, a hospital side becomes possible [being able to concentrate on an operation more and reducing a medical accident]. Moreover, although the hospital side managed the stock quantity of an article of consumption uniquely and had placed an order with two or more contractors conventionally, since it package-supplies and groups buy and sell orders by the exchange contractor, while the burden by the side of a hospital is mitigated sharply, it becomes possible to reduce management cost. Furthermore, since an exchange contractor collects after an operation and it was made to sterilize about reuse articles, such as Metz, a hospital side is released from processing burdens, such as sterilization. And since it was made to carry out thorough management of the stock quantity of a reuse article, it becomes possible to discover the medical accident of leaving Metz etc. in a patient's inside of the body, at an early stage. That is, according to this invention, it becomes possible to aim at the progression in quality in [in a hospital enterprise] medicine, and a cost cut on the financial side.

[0093] If it is in the 2nd invention, the 3rd invention, the 7th invention, the 11th invention, the 14th invention, or the 17th invention When the doctor in charge and operation name of an operation are determined, the operation supply used in this operation by using a doctor in charge and an operation name as a key is determined. The called quantity of the reuse article concerning this determined operation supply is transmitted to reuse article management equipment from central-control equipment, and the called quantity of an article of consumption is transmitted to article-of-consumption management equipment, respectively. Since the article-of-consumption inventory file which registered the inventory of each article of consumption beforehand was prepared for article-of-consumption management equipment, article-of-consumption management equipment measured the called quantity and stock quantity of an article of consumption which were received, and it judged whether it would be necessary to newly add an article of consumption, and the article of consumption was ordered from works, a supplier company, etc. when required, it becomes possible to prevent the inventory crack of an article of consumption beforehand.

[0094] Moreover, after an operation is conducted, central-control equipment receives the quantity of the reuse article which was not used in the operation, and an article of consumption, and transmits this to reuse article management equipment and article-of-consumption management equipment, respectively. And since article-of-consumption management equipment registered into the article-of-consumption inventory file the residual quantity which was not used in the operation, the stock control of it which also took into consideration the residual quantity of the article of consumption which was not used in the

operation becomes possible, and the high order of precision of it is attained more. Although it is difficult, since the residual quantity of the article of consumption which appears in the operation supply wagon, without using it in this invention is counted and it was made to make a central-control person input, it becomes possible [, managing the number of articles of consumption with a sufficient precision easily moreover] for especially an article of consumption to be thrown in the container of dedication etc., and to grasp the operating quantity exactly compared with the case where a used number is counted specially.

[0095] On the other hand, reuse management equipment registers the called quantity of the reuse article into a reuse article inventory file, when it has the reuse article inventory file which manages the stock quantity of each reuse article and quantity required for an operation is transmitted from central-control equipment. Moreover, when the residual quantity of the reuse article which was not used in the operation from central-control equipment is transmitted, the residual quantity of the reuse article is registered into a reuse article inventory file. And when the used reuse articles put on the instrument table are collected in the reuse article management office for sterilization, a reuse article manager counts the operating quantity for every reuse article, and inputs operating quantity into reuse management equipment. And if the total value of the registered called quantity, and the inputted operating quantity and the registered residual quantity was not in agreement, since it was made to judge that the reuse article was lost according to the abnormal condition, i.e., a certain cause, when a reuse article is lost, it becomes possible to specify the operation used as the lost cause at an early stage. Thus, since the inventory of a reuse article and an article of consumption was managed appropriately, a medical practitioner etc. is enabled to concentrate on a medical action, and it becomes possible [reducing a medical accident sharply as a result].

[0096] If it is in the 8th invention and the 9th invention, the article of consumption registered into the article-of-consumption inventory file is *(ed) or reduced with the called quantity of the article of consumption for which it is needed in an operation for every article of consumption. And if the value which *(ed) or reduced value is below a predetermined threshold, it makes it judge that stock quantity is liable to insufficient, and since it was made to make the article of consumption order from works, a supplier company, etc., possibility of causing an inventory crack will decrease sharply, and it will become possible to prevent the situation where articles of consumption run short in implementation of an operation. And this invention can do the outstanding effectiveness so by setting a threshold as a suitable value according to the class of article of consumption -- the inventory supplement according to the class of article of consumption is attained, and the suitable order to works, a supplier company, etc. is attained.

[0097] If it is in the 4th invention and the 12th invention, it judges whether the residual quantity of the operation supply containing the reuse article and article of consumption which were received is a suitable value. In the decision, the reference-value file which registered the reference value which hits judging whether the residual quantity of an operation supply is proper for every operation supply is prepared beforehand, and it compares with the received residual quantity. And since the called quantity of the operation name-operation supply correlation file beforehand registered according to the class of operation was changed when the residual quantity of an operation supply exceeded a reference value, as a result of comparing, a standardization of the called quantity needed in an operation can be attained, and the precision of the stock control of an operation supply will improve further.

[0098] If it is in the 5th invention and the 10th invention, the claim article-of-consumption file which registered the class of article of consumption set as the object of insurance claim is prepared beforehand. And the operating quantity of the article of consumption used in the operation is computed by subtracting residual quantity from the called quantity of the received article of consumption. And since the operating quantity of a claim article of consumption was extracted from the operating quantity of an article of consumption with reference to the claim article-of-consumption file, the quantity of the article of consumption set as the object of insurance claim can be grasped correctly, and it becomes possible to attain clear-izing of income and outgo, and stabilization of hospital management.

[0099] If it is in the 6th invention and the 13th invention, each article of consumption is classified and

contained in the housing of an automatic inventory storage warehouse. This well-known automatic inventory storage warehouse outputs the operating quantity of each article of consumption by the count of closing motion of the lid of a housing, and memorizes the operating quantity of each of this outputted article of consumption. Moreover, the auxiliary claim article-of-consumption file which registered also into central-control equipment the class of article of consumption set as the object of insurance claim is prepared beforehand. And since the operating quantity of an auxiliary claim article of consumption was extracted from the operating quantity of an article of consumption with reference to the auxiliary claim article-of-consumption file, the quantity of the article of consumption set as the object of insurance claim can be grasped correctly, and it becomes possible to attain clear-izing of income and outgo, and stabilization of hospital management. Moreover, it becomes possible to fill up the article of consumption which should be filled up without excess and deficiency from it becoming possible to grasp exactly the operating quantity of the article of consumption contained in the automatic inventory storage warehouse used in the operation.

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] However, the operation managerial system of the indication to JP,11-85876,A was not what remains for ordering an operation supply and performs stock control of the ordered operation supply. Operation supplies of many classes, such as articles of consumption, such as gauze besides reuse articles, such as Metz and forceps, a suture for an operation, and a chemical, are needed for an operation. The number of these operation supplies must not have lack, and the stock control is very important for it.

[0005] If management of these operation supply is left to a busy medical practitioner or a busy nurse etc., it becomes the hindrance of a smooth medical action and becomes the factor which induces a medical accident. Moreover, when airlifting operation supplies, such as a pacemaker, from overseas, for example, in order for acquisition to take time amount very much, it is necessary to put the stock control into practice. Especially, when a stock control object was an operation supply, it was anxious for construction of the operation supply managerial system for employing an operation smoothly, as a result supporting a hospital enterprise, since an inventory crack may influence a patient's life.

[0006] Moreover, an operation supply has the property that it can divide roughly into reuse articles, such as Metz which can be reused after carrying out sterilization processing, and articles of consumption which will be set as the object of disposal once it uses it, such as gauze and drugs, as above-mentioned. That is, about an article of consumption, while the number decreases at every operation, when it is not used by operation, it has the description that it is available again. Therefore, it can be said that the suitable article of consumption according to the situation of the use or not using it needs to be managed.

[0007] On the other hand, since it was used except for the case where endurance falls, about a reuse article, excess and deficiency did not occur in an inventory and especially stock control was not performed appropriately conventionally. However, the medical accident sutured leaving forceps etc. in the stomach etc. in a laparotomy in recent years can see. Although based on a medical practitioner's etc. negligence, this medical accident may have been able to be prevented when the management consciousness over the number of inventories of a reuse article of the manager who manages that operation supply was enough.

[0008] Moreover, although an operation supply and its quantity were determined according to the class of that operation when an operation was planned as mentioned above, the quantity of this operation supply determined is determined based on experience, and was not necessarily able to say it as a suitable thing.

[0009] Moreover, if it is in a specific article of consumption, what is set as the object of a claim of a medical insurance exists. Conventionally, the nurse etc. removed the claim label currently stuck on the article of consumption after the operation, and this claim was performed by sticking it on a claim ledger. However, it tended to be avoided from ** burdening a busy nurse etc. with this activity, and it being a complicated activity. There was a problem that insurance claim was not made correctly, from such a situation in a hospital. In order to cause the situation which shakes the management of a hospital as a result of income and outgo's becoming not clear when insurance claim is not performed certainly, it is necessary to manage strictly the article of consumption set as the object of insurance claim.

[0010] Furthermore, in addition to the above-mentioned operation supply prepared beforehand, other operation supplies are prepared for the operating room. These operation supplies are beforehand prepared for the storage warehouse of dedication, and when a certain accident occurs, they take out and use a reuse article or an article of consumption from this storage warehouse. Although it is necessary to also manage correctly the quantity of the article of consumption picked out from this storage warehouse, it is very difficult to carry out counting of that quantity and to manage it in the situation of having become tense at the time of an operation. Furthermore, it is necessary to grasp exactly the operating quantity of the article of consumption set as the object of above-mentioned insurance claim out of the used article of consumption.

[0011] The place which this invention is made in view of this situation, and is made into the purpose While preventing the medical accident by the lack of an inventory of an operation supply by performing stock control about the operation supply which consists of a reuse article and an article of consumption The exchange approach of a hospital enterprise which can support a smooth medical action, an operation supply management method, And it is in offering the record medium with which the computer program for operating an operation supply managerial system, the article-of-consumption management equipment used for these at a list, central-control equipment, reuse article management equipments, and each of these equipments is recorded.

[0012] Moreover, other purposes of this invention are to offer the article-of-consumption management equipment which can order and replace the article of consumption which ran short with suitable timing, when the stock quantity of an article of consumption decreases.

[0013] Moreover, other purposes of this invention are to offer the operation supply managerial system which can optimize the called quantity of the operation supply determined based on an operation plan, and central-control equipment.

[0014] Moreover, other purposes of this invention are to offer the operation supply managerial system which the quantity of the article of consumption set as the object of insurance claim is managed exactly, and can attain clear-izing of income and outgo, and stabilization of hospital management, and article-of-consumption management equipment.

[0015] Furthermore, other purposes of this invention are to offer the operation supply managerial system which can also manage the operating quantity of the article of consumption set as the object of the insurance claim which manages the operating quantity of the article of consumption picked out from the storage warehouse in emergency, and is generated by the use, and central-control equipment.

[Translation done.]

* NOTICES *

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- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

MEANS

[Means for Solving the Problem] The exchange approach of the hospital enterprise concerning the 1st invention is the exchange approach of a hospital enterprise. An exchange contractor supplies the called quantity of the reuse article which determined the quantity of a reuse article required for an operation, and an article of consumption, and was this determined before the operation, and an article of consumption to a hospital. After an operation Counting of the quantity of the reuse article which collected the supplied reuse articles, sterilized and was supplied is carried out, and about the supplied article of consumption, counting of the quantity is carried out and it is characterized by ordering suitably.

[0017] If it is in the 1st invention, the exchange contractor who supports a hospital enterprise determines the called quantity of articles of consumption, such as reuse articles, such as Metz required for an operation, and gauze, based on the operation plan submitted by the doctor in charge. An exchange contractor supplies a required reuse article and a required article of consumption to a called quantity hospital based on this. And stock control is performed about an article of consumption, and it orders suitably so that lack may not arise. On the other hand, about a reuse article, it collects and sterilizes after an operation, and the quantity is managed further. Thus, since a reuse article and an article of consumption required for an operation were supplied to the hospital, it becomes possible for a hospital side to be able to concentrate on an operation more, as a result to reduce a medical accident. Moreover, although the hospital side managed the stock quantity of an article of consumption uniquely and had placed an order with two or more contractors conventionally, since it package-supplies and groups buy and sell orders by the exchange contractor, while the burden by the side of a hospital is mitigated sharply, it becomes possible to reduce management cost. Furthermore, since the exchange contractor was made to collect and sterilize after an operation about reuse articles, such as Metz, a hospital side is released from processing burdens, such as sterilization. And since it was made to carry out thorough management of the stock quantity of a reuse article, it becomes possible to discover the medical accident of leaving Metz etc. in a patient's inside of the body, at an early stage. That is, according to this invention, it becomes possible to aim at the progression in quality in [in a hospital enterprise] medicine, and a cost cut on the financial side.

[0018] The operation supply management method concerning the 2nd invention is an operation supply management method which determines the quantity of a reuse article required for an operation, and an article of consumption, and manages the quantity of the this determined reuse article and an article of consumption. The called quantity of an article of consumption required for said operation, Order of this article of consumption is determined based on the stock quantity of said article of consumption registered into the article-of-consumption inventory file which registered the stock quantity of each article of consumption prepared beforehand. It registers with the reuse article inventory file which registered the stock quantity of each reuse article beforehand prepared in the called quantity of a reuse article required for said operation. The residual quantity of the article of consumption which was not used in said operation is registered into said article-of-consumption inventory file. The called quantity of said reuse article which registered into the reuse article inventory file the residual quantity of the reuse article which was not used in said operation, and was registered into said reuse article inventory file, When the total value of the residual quantity of said reuse article registered into said reuse article inventory file and the operating quantity of the reuse article used in said operation is not in agreement, it is characterized by judging that it is unusual.

[0019] The operation supply managerial system concerning the 3rd invention is based on the operation plan received with the central-control equipment installed in a hospital. Determine the quantity of a reuse article required for this operation, and an article of consumption, and while transmitting the called quantity of the this determined reuse article to reuse article management equipment It is the operation supply managerial system which transmits the called quantity of said determined article of consumption to article-of-consumption management equipment.

Said article-of-consumption management equipment An article-of-consumption called quantity reception means to receive the called quantity of the article of consumption transmitted from said central-control equipment, The article-of-consumption inventory file which registered the stock quantity of each article of consumption, and the called quantity of an article of consumption received with said article-of-consumption called quantity reception means, It has an order decision means to determine order of this article of consumption based on the stock quantity of said article of consumption registered into said article-of-consumption inventory file, Said central-control equipment A residual quantity reception means to receive the residual quantity of the reuse article which was not used in said operation, and an article of consumption, A reuse article residual quantity transmitting means to transmit the residual quantity of the reuse article received with this residual quantity reception means to said reuse article management equipment, It has an article-of-consumption residual quantity transmitting means to transmit the residual quantity of the article of consumption received with said residual quantity reception means to said article-of-consumption management equipment, Said article-of-consumption management equipment It has further an article-of-consumption residual quantity registration means to register into said article-of-consumption inventory file the residual quantity of the article of consumption transmitted by said article-of-consumption residual quantity transmitting means, Said reuse article management equipment The reuse article inventory file which registered the stock quantity of each reuse article, and a reuse article called quantity registration means to register into said reuse article inventory file the called quantity of the reuse article transmitted from said central-control equipment, A reuse article residual quantity registration means to register into said reuse article inventory file the residual quantity of the reuse article transmitted by said reuse article residual quantity transmitting means, An operating quantity reception means to receive the operating quantity of the reuse article used in said operation, The called quantity of the reuse article registered into said reuse article inventory file, and the operating quantity of said reuse article received with said operating quantity reception means, And a comparison means to compare the total value of the residual quantity of said reuse article registered into said reuse article inventory file, As a result of this comparison means' comparing, when the called quantity of said reuse article and the total value of operating quantity and residual quantity are not in agreement, it is characterized by having further an abnormality signal output means to output an abnormality signal.

[0020] The operation supply managerial system concerning the 4th invention is set to the 3rd invention. Said central-control equipment The reference-value file which registered the reference value which hits judging whether the residual quantity of the operation supply containing a reuse article and an article of consumption is proper for every operation supply, The operation name-operation supply correlation file which registered the called quantity of the operation supply containing a reuse article and an article of consumption required for an operation according to the class of operation, A reference-value comparison means to compare the residual quantity of the operation supply received with said residual quantity reception means with the reference value of said operation supply registered into said reference-value file, As a result of this reference-value comparison means' comparing, when the residual quantity of an operation supply exceeds a reference value, it is characterized by having further a modification means to change the called quantity of said operation supply registered into said operation name-operation supply correlation file.

[0021] The operation supply managerial system concerning the 5th invention is set to the 3rd or 4th invention. Said article-of-consumption management equipment The claim article-of-consumption file which registered the claim article of consumption set as the object of insurance claim among articles of consumption, A use squaring means to compute the operating quantity of said article of consumption by subtracting the residual quantity of said article of consumption transmitted by said article-of-consumption residual quantity transmitting means from the called quantity of the article of consumption received with said article-of-consumption called quantity reception means, It is characterized by having further an extract means to extract the operating quantity of the claim article of consumption registered into said claim article-of-consumption file from the operating quantity of the article of consumption computed with this use squaring means.

[0022] The operation supply managerial system concerning the 6th invention is set to the 3rd thru/or the 5th invention. It has further the automatic inventory storage warehouse which classifies each article of consumption and has been contained and which outputs the count of closing motion of the lid of a housing to said central-control equipment as operating quantity of each article of consumption, Said central-control equipment An operating quantity storage means to memorize the operating quantity of each article of consumption outputted from said automatic inventory storage warehouse, The auxiliary claim article-of-consumption file which registered the claim article of consumption set as the object of insurance claim among articles of consumption, It is characterized by having further an auxiliary extract means to extract the operating quantity of the claim article of consumption

registered into said auxiliary claim article-of-consumption file from the operating quantity of the article of consumption memorized with said operating quantity storage means.

[0023] An article-of-consumption called quantity reception means for the article-of-consumption management equipment concerning the 7th invention to be article-of-consumption management equipment which manages the quantity of the article of consumption used for an operation, and to receive the called quantity of the article of consumption transmitted from the outside, The article-of-consumption inventory file which registered the stock quantity of each article of consumption, and the called quantity of an article of consumption received with said article-of-consumption called quantity reception means, It is characterized by having an order decision means to determine order of this article of consumption based on the stock quantity of said article of consumption registered into said article-of-consumption inventory file, and an article-of-consumption residual quantity registration means to register into said article-of-consumption inventory file the residual quantity of the article of consumption transmitted from the outside.

[0024] In the 7th invention, the article-of-consumption management equipment concerning the 8th invention is characterized by constituting so that order of this article of consumption may be determined, when said order decision means ** stock quantity of the article of consumption registered into said article-of-consumption inventory file with the called quantity of said article of consumption received with said article-of-consumption called quantity reception means and the value which *(ed) exceeds a predetermined threshold.

[0025] The article-of-consumption management equipment concerning the 9th invention is characterized by constituting said order decision means so that order of this article of consumption may be determined when the called quantity of said article of consumption received with said article-of-consumption called quantity reception means is subtracted from the stock quantity of the article of consumption registered into said article-of-consumption inventory file and the reduced value exceeds a predetermined threshold in the 7th invention.

[0026] The claim article-of-consumption file which registered the claim article of consumption with which the article-of-consumption management equipment concerning the 10th invention is set as the object of insurance claim among articles of consumption in the 7th thru/or the 9th invention, A use squaring means to compute the operating quantity of said article of consumption by subtracting the residual quantity of said article of consumption transmitted from the outside from the called quantity of the article of consumption received with said article-of-consumption called quantity reception means, It is characterized by having further an extract means to extract the operating quantity of the claim article of consumption registered into said claim article-of-consumption file from the operating quantity of the article of consumption computed with this use squaring means.

[0027] The central-control equipment concerning the 11th invention is based on the operation plan for which it opted. A residual quantity reception means to determine the quantity of a reuse article required for this operation, and an article of consumption, and to receive the residual quantity of the reuse article which is central-control equipment which manages the quantity of the this determined reuse article and an article of consumption, and was not used in said operation, and an article of consumption, It is characterized by having a reuse article residual quantity transmitting means to transmit the residual quantity of the reuse article received with this residual quantity reception means to the exterior, and an article-of-consumption residual quantity transmitting means to transmit the residual quantity of the article of consumption received with said residual quantity reception means to the exterior. [0028] The reference-value file which registered the reference value which hits judging whether the central-control equipment concerning the 12th invention has the proper residual quantity of the operation supply which contains a reuse article and an article of consumption in the 11th invention for every operation supply, The operation name-operation supply correlation file which registered the called quantity of the operation supply containing a reuse article and an article of consumption required for an operation according to the class of operation, A reference-value comparison means to compare the residual quantity of the operation supply received with said residual quantity reception means with the reference value of said operation supply registered into said reference-value file, As a result of this reference-value comparison means' comparing, when the residual quantity of an operation supply exceeds a reference value, it is characterized by having further a modification means to change the called quantity of said operation supply registered into said operation name-operation supply correlation file.

[0029] The central-control equipment concerning the 13th invention is set to the 11th or 12th invention. An operating quantity storage means to memorize the operating quantity of each article of consumption outputted from the outside, The auxiliary claim article-of-consumption file which registered the claim article of consumption set as the object of insurance claim among articles of consumption, It is characterized by having further an auxiliary extract means to extract the operating quantity of the claim article of consumption registered into said auxiliary claim article-of-consumption file from the operating quantity of the article of consumption memorized with said

operating quantity storage means.

[0030] The reuse article inventory file which the reuse article management equipment concerning the 14th invention is reuse article management equipment which manages the quantity of the reuse article used for an operation, and registered the stock quantity of each reuse article, A reuse article called quantity registration means to register into said reuse article inventory file the called quantity of the reuse article transmitted from the outside, A reuse article residual quantity registration means to register into said reuse article inventory file the residual quantity of the reuse article transmitted from the outside, An operating quantity reception means to receive the operating quantity of the reuse article used in said operation, The called quantity of the reuse article registered into said reuse article inventory file, and the operating quantity of said reuse article received with said operating quantity reception means, And a comparison means to compare the total value of the residual quantity of said reuse article registered into said reuse article inventory file, As a result of this comparison means' comparing, when the called quantity of said reuse article and the total value of operating quantity and residual quantity are not in agreement, it is characterized by having an abnormality signal output means to output an abnormality signal.

[0031] The record medium in which reading by the computer concerning the 15th invention is possible In the record medium with which the computer program for managing the quantity of the article of consumption which a computer uses for an operation is recorded and in which reading by the computer is possible An article-of-consumption called quantity reception program code means to make the called quantity of the article of consumption transmitted to said computer from other computers received, A program code means to make an article-of-consumption inventory file register the stock quantity of each article of consumption into said computer, The called quantity of an article of consumption which said computer was made to receive with said article-of-consumption called quantity reception program code means, A program code means to make order of this article of consumption determine based on the stock quantity of said article of consumption made to register into said article-of-consumption inventory file, It is characterized by recording the computer program including a program code means to make the residual quantity of the article of consumption transmitted to said computer from the computer besides the above register into said article-of-consumption inventory file.

[0032] The record medium in which reading by the computer concerning the 16th invention is possible A computer determines the quantity of a reuse article required for this operation, and an article of consumption based on the operation plan for which it opted. In the record medium with which the computer program for managing the quantity of the determined this reuse article and an article of consumption is recorded and in which reading by the computer is possible A residual quantity reception program code means to make the residual quantity of the reuse article which was not used for said computer in said operation, and an article of consumption received, A program code means to make the residual quantity of the reuse article made to be received with this residual quantity reception program code means transmit to other computers, It is characterized by recording the computer program including a program code means to make the residual quantity of the article of consumption made to be received with said residual quantity reception program code means transmit to other computers.

[0033] The record medium in which reading by the computer concerning the 17th invention is possible In the record medium with which the computer program for managing the quantity of the reuse article which a computer uses for an operation is recorded and in which reading by the computer is possible A program code means to make a reuse article inventory file register the stock quantity of each reuse article into said computer, A program code means to make the called quantity of the reuse article transmitted to said computer from other computers register into said reuse article inventory file, A program code means to make the residual quantity of the reuse article transmitted to said computer from the computer besides the above register into said reuse article inventory file, An operating quantity reception program code means to make the operating quantity of the reuse article used for said computer in said operation received, The called quantity of the reuse article which said reuse article inventory file was made to register into said computer, A comparison program code means to make the total value of the operating quantity of said reuse article made to be received with said operating quantity reception program code means, and the residual quantity of said reuse article made to register into said reuse article inventory file compare, As a result of making this comparison program code means compare with said computer, the called quantity of said reuse article, When the total value of operating quantity and residual quantity is not in agreement, it is characterized by recording the computer program including the program code means to which an abnormality signal is made to output.

[0034] If it is in the 2nd invention, the 3rd invention, the 7th invention, the 11th invention, the 14th invention, or the 17th invention When the doctor in charge and operation name of an operation are determined, the operation supply used in this operation by using a doctor in charge and an operation name as a key is determined. The called

quantity of the reuse article concerning this determined operation supply is transmitted to reuse article management equipment from central-control equipment, and the called quantity of an article of consumption is transmitted to article-of-consumption management equipment, respectively. Since the article-of-consumption inventory file which registered the inventory of each article of consumption beforehand was prepared for article-of-consumption management equipment, article-of-consumption management equipment measured the called quantity and stock quantity of an article of consumption which were received, and it judged whether it would be necessary to newly add an article of consumption, and the article of consumption was ordered from works, a supplier company, etc. when required, it becomes possible to prevent the inventory crack of an article of consumption beforehand.

[0035] Moreover, after an operation is conducted, central-control equipment receives the quantity of the reuse article which was not used in the operation, and an article of consumption, and transmits this to reuse article management equipment and article-of-consumption management equipment, respectively. And since article-of-consumption management equipment registered into the article-of-consumption inventory file the residual quantity which was not used in the operation, the stock control of it which also took into consideration the residual quantity of the article of consumption which was not used in the operation becomes possible, and the high order of precision of it is attained more. Although it was difficult to grasp the operating quantity exactly since especially the article of consumption used in the operation was thrown in the container of dedication, since it counts the residual quantity of the article of consumption which appears in the operation supply wagon, without using it in this invention and was made to make a manager input, compared with the case where a used number is counted specially, it becomes possible to, manage the number of articles of consumption with a sufficient precision easy moreover.

[0036] On the other hand, reuse management equipment registers the called quantity of the reuse article into a reuse article inventory file, when it has the reuse article inventory file which manages the stock quantity of each reuse article and quantity required for an operation is transmitted from central-control equipment. Moreover, when the residual quantity of the reuse article which was not used in the operation from central-control equipment is transmitted, the residual quantity of the reuse article is registered into a reuse article inventory file. And when the used reuse articles put on the instrument table are collected in the reuse article management office for sterilization, a reuse article manager counts the operating quantity for every reuse article, and inputs operating quantity into reuse management equipment. And if the total value of the registered called quantity, and the inputted operating quantity and the registered residual quantity was not in agreement, since it was made to judge that the reuse article was lost according to the abnormal condition, i.e., a certain cause, when a reuse article is lost, it becomes possible to specify the operation used as the lost cause at an early stage. Thus, since the inventory of a reuse article and an article of consumption was managed appropriately, a medical practitioner etc. is enabled to concentrate on a medical action, and it becomes possible [reducing a medical accident sharply as a result].

[0037] If it is in the 8th invention and the 9th invention, it ** or reduces with the called quantity of the article of consumption needed by setting the article of consumption registered into the article-of-consumption inventory file for every article of consumption, and setting the stock quantity of an article of consumption to an operation. And if the value which **(ed) or reduced value is below a predetermined threshold, it makes it judge that stock quantity is liable to insufficient, and since it was made to make the article of consumption order from works, a supplier company, etc., possibility of causing an inventory crack will decrease sharply, and it will become possible to prevent the situation where articles of consumption run short in implementation of an operation. And by setting a threshold as a suitable value according to the class of article of consumption, the inventory supplement according to the class of article of consumption is attained, and the suitable order to works, a supplier company, etc. is attained.

[0038] If it is in the 4th invention and the 12th invention, it judges whether the residual quantity of the operation supply containing the reuse article and article of consumption which were received is a suitable value. In the decision, the reference-value file which registered the reference value which hits judging whether the residual quantity of an operation supply is proper for every operation supply is prepared beforehand, and it compares with the received residual quantity. And since the called quantity of the operation name-operation supply correlation file which has registered the called quantity of an operation supply beforehand according to the class of operation was changed when the residual quantity of an operation supply exceeded a reference value, as a result of comparing, a standardization of the called quantity needed in an operation can be attained, and the precision of the stock control of an operation supply will improve further.

[0039] If it is in the 5th invention and the 10th invention, the claim article-of-consumption file which registered the class of article of consumption set as the object of insurance claim is prepared beforehand. And the operating quantity of the article of consumption used in the operation is computed by subtracting residual quantity from the called quantity of the received article of consumption. And since the operating quantity of a claim article of

consumption was computed from the operating quantity of an article of consumption with reference to the claim article-of-consumption file, the quantity of the article of consumption set as the object of insurance claim can be grasped correctly, and it becomes possible to attain clear-izing of income and outgo, and stabilization of hospital management.

[0040] If it is in the 6th invention and the 13th invention, each article of consumption is classified and contained in the housing of an automatic inventory storage warehouse. This well-known automatic inventory storage warehouse outputs the operating quantity of each article of consumption by the count of closing motion of the lid of a housing, and memorizes the operating quantity of each of this outputted article of consumption. Moreover, the auxiliary claim article-of-consumption file which registered also into central-control equipment the class of claim article of consumption set as the object of insurance claim is prepared beforehand. And since the operating quantity of an auxiliary claim article of consumption was extracted from the operating quantity of an article of consumption with reference to the auxiliary claim article-of-consumption file, the quantity of the article of consumption set as the object of insurance claim can be grasped correctly, and it becomes possible to attain clear-izing of income and outgo, and stabilization of hospital management. Moreover, it becomes possible to fill up the article of consumption which should be filled up without excess and deficiency from it becoming possible to grasp exactly the operating quantity of the article of consumption contained in the automatic inventory storage warehouse used in the operation.

[0041]

[Embodiment of the Invention] One or less gestalt this invention of operation is explained in full detail based on the drawing in which the gestalt of the operation is shown. Drawing 1 is the mimetic diagram showing the operation supply managerial system concerning this invention. In drawing, 1 is central-control equipment which generalizes preparation of an operation supply and stock control. Central-control equipment 1 determines articles of consumption, such as reuse articles, such as Metz required for an operation, and gauze, and drugs, and the quantity of those based on the operation plan which the medical practitioner in charge submitted. About the called quantity of an article of consumption required for an operation, it is transmitted to the article-of-consumption management equipment 2 connected through a communication network N. Article-of-consumption management equipment 2 had article-of-consumption inventory file 25a, such as a hard disk, and has registered the stock quantity of each article of consumption etc.

[0042] Since disposal of the article of consumption used by operation is carried out, stock quantity decreases, and order is suitably performed to works 4, a supplier company, etc. who manufacture the works 4 which manufacture gauze, a suture, a suture needle, etc., or drugs in that case (in addition, below, the works which manufacture gauze etc., the works which manufacture drugs, and a supplier company are called works 4). It is transmitted to the reuse article management equipment 3 similarly connected through a communication network N on the other hand about the called quantity of a reuse article required for an operation. Reuse article management equipment 3 had reuse article inventory file 35a, such as a hard disk, and has registered the stock quantity of each reuse article etc. After operation termination, reuse articles are collected and are reused by performing sterilization processing.

[0043] Drawing 2 is the block diagram showing the hardware configuration of central-control equipment 1. In drawing, 16 is the communications departments, such as a router which transmits and receives information between the article-of-consumption management equipment 2 and the reuse article management equipment 3 which are connected through a communication network N by directions of MPU11. Moreover, when an operation plan is told by the medical practitioner etc., the manager (henceforth a central-control person) of the central-control equipment 1 which is an exchange contractor's constituent inputs operation plan data, such as an operation day, a doctor in charge, and an operation name, from the input sections 13, such as a keyboard. The contents are displayed on the displays 14, such as CRT or a liquid crystal display, in the case of an input.

[0044] Drawing 3 is the explanatory view showing the input screen of an operation plan. As shown in drawing, an operation day, time amount, an operating room, a name of patient, an operation name, an operating medical practitioner, etc. are inputted from the input section 13. The inputted data are memorized by operation planned file 15a of the storage sections 15, such as a back hard disk temporarily stored in RAM12.

[0045] An operation supply required for an operation and its quantity are registered into operation name-operation supply correlation file 15b. Operation supplies are articles of consumption, such as reuse articles, such as Metz, and gauze, and drugs, and quantity respectively required for each operation is registered. As for operation name-operation supply correlation file 15b, it is possible for a central-control person to input data from the input section 13, and to change the contents suitably. Moreover, since the supply used for an operation by the operating medical practitioner who performs an operation differs from its called quantity, the quantity of the operation supply

according to an operating medical practitioner is registered into operation name-operation supply correlation file 15b.

[0046] If a need matter is inputted in the input screen in drawing 3 and a decision carbon button is clicked, while MPU11 will use an operation name and an operating medical practitioner as a key, searching operation name-operation supply correlation file 15b and memorizing the quantity of an operation supply required for the operation concerned, i.e., the quantity of a reuse article, and the quantity of an article of consumption to operation planned file 15a, the contents are displayed to a display 14.

[0047] Drawing 4 is an explanatory view which displays the called quantity of an operation supply. An article-of-consumption name and its called quantity are displayed on a reuse name of article and its called quantity, and a list as shown in drawing. In addition, from the input section 13, the central-control person is possible for adding a reuse article and an article of consumption required for others, and can fluctuate such called quantity if needed similarly. And when a central-control person clicks a decision carbon button, the called quantity of a reuse article is transmitted to reuse article management equipment 3, and the called quantity of an article of consumption is transmitted to article-of-consumption management equipment 2, respectively. In addition, it is related with the reuse article code for identifying each reuse article, and is transmitted, and the called quantity of a reuse article is similarly associated and transmitted to an article-of-consumption code for the called quantity of an article of consumption to also identify each article of consumption. Below, when transmitting quantity, these reuse article codes and an article-of-consumption code shall also be transmitted to coincidence.

[0048] Drawing 5 is the explanatory view showing the screen which inputs the residual quantity of the operation supply after an operation. When an operation is completed, a central-control person counts the residual quantity of the reuse article which appears in the operation supply wagon, and an article of consumption, and inputs each residual quantity by the input section 13. The inputted data are matched with an operation plan code, and are registered into after [an operation] management file 15c. It is transmitted to reuse article management equipment 3, and the residual quantity of the registered reuse article is registered into reuse article inventory file 35a. Moreover, it is transmitted to article-of-consumption management equipment 2, and the residual quantity of the registered article of consumption is registered into article-of-consumption inventory file 25a.

[0049] Drawing 6 is the block diagram showing the hardware configuration of article-of-consumption management equipment 2. In drawing, 26 is the communications departments, such as a router which transmits and receives information between the central-control equipment 1 connected through a communication network N by directions of MPU21. Moreover, article-of-consumption inventory file 25a which registered the number of inventories of an article of consumption is prepared in the storage sections 25, such as a hard disk of article-of-consumption management equipment 2. After the called quantity and residual quantity of an article of consumption which were transmitted from central-control equipment 1 are temporarily stored in RAM22, they are registered into article-of-consumption inventory file 25a, respectively. These contents of registration can be displayed on the displays 24, such as CRT or a liquid crystal display, when the manager (henceforth an article-of-consumption manager) of the article-of-consumption management equipment 2 which is an exchange contractor's constituent operates the input sections 23, such as a keyboard.

[0050] Drawing 7 is the explanatory view showing the database structure of article-of-consumption inventory file 25a. As shown in drawing, it matches with an article of consumption, and the stock quantity of each article of consumption is registered. Moreover, when the threshold for determining the timing which places an order for an article of consumption with works 4 is registered and the called quantity of an article of consumption is transmitted from central-control equipment 1, registered stock quantity is $*(ed)$ with called quantity. And if the value is below a registered threshold, it will judge that it runs short and will place an order for the article of consumption with works 4. For example, about "silk thread (60cmx10 set)" of a suture, stock quantity is "85" individuals, called quantity is "5" (refer to drawing 4), and the value which $*(ed)$ is set to "17" and is below a threshold "20." Therefore, "silk thread (60cmx10 set)" serves as a candidate for order to works 4. The article of consumption which gave the slash of drawing serves as a candidate for order. In addition, this threshold can be suitably changed by the article-of-consumption manager by the input section 23.

[0051] Moreover, called quantity is subtracted from stock quantity, and with [the value] a threshold [below], you may make it order, although it judged whether stock quantity would be $*(ed)$ with called quantity, and the value and threshold which $*(ed)$ would be compared and ordered in the above-mentioned example. For example, about an article of consumption "Ox suture needle", since stock quantity "27" and called quantity are "8" (refer to drawing 4), a difference is set to "19." Since the threshold is set up with "20", an article of consumption "Ox suture needle" is set as the object of order to works 4. In addition, the date ordered from last time is registered into article-of-

consumption inventory file 25a.

[0052] After judging the existence of the article-of-consumption order mentioned above, the called quantity transmitted from central-control equipment 1 is reduced and registered from stock quantity. For example, about an article of consumption "silk thread (50cmx10 set)", called quantity "3" (refer to drawing 4) is subtracted from the original stock quantity "350", and stock quantity is registered as "347."

[0053] On the other hand, when an operation is completed and the number of ** is in an article of consumption, the residual quantity of an article of consumption is transmitted to article-of-consumption management equipment 2 from central-control equipment 1. Article-of-consumption management equipment 2 receives the residual quantity of an article of consumption, and registers it into article-of-consumption inventory file 25a. Specifically, the residual quantity of the article of consumption received to the stock quantity of an article of consumption is added. For example, about an article of consumption "silk thread (50cmx10 set)", the residual quantity "1" (refer to drawing 5) of the article of consumption received to the original stock quantity "347" is added, and it registers with stock quantity "348." The stock control which also took into consideration by this the number of the articles of consumption which were not used in the operation becomes possible.

[0054] Drawing 8 is the block diagram showing the hardware configuration of reuse article management equipment 3. In drawing, 36 is the communications departments, such as a router which transmits and receives information between the central-control equipment 1 connected through a communication network N by directions of MPU31. Moreover, reuse article inventory file 35a which registered the number of inventories of a reuse article is prepared in the storage sections 35, such as a hard disk of reuse article management equipment 3. After the called quantity and residual quantity of a reuse article which were transmitted from central-control equipment 1 are temporarily stored in RAM32, they are registered into reuse article inventory file 35a, respectively. These contents of registration can be displayed on the displays 34, such as CRT or a liquid crystal display, when the manager (henceforth a reuse article manager) of the reuse article management equipment 3 which is an exchange contractor's constituent operates the input sections 33, such as a keyboard.

[0055] The reuse article used in the operation is kept after being collected and sterilized by the sterilization room in which it is put on an instrument table and reuse article management equipment 3 is installed after that. The number is checked by the reuse article manager and the collected used reuse article inputs the checked number from the input section 33 for every reuse article by him. The inputted data are registered into reuse article inventory file 35a.

[0056] Drawing 9 is the explanatory view showing the database structure of reuse article inventory file 35a. As shown in drawing, it matched with the reuse article at reuse article inventory file 35a, and stock quantity is registered, respectively. This MPU31 subtracts called quantity from stock quantity, when called quantity is transmitted from central-control equipment 1. And when an operation is finished and residual quantity is transmitted from central-control equipment 1, residual quantity is added to the reduced value. Furthermore, when used reuse articles are collected at a sterilization room and a reuse article manager inputs operating quantity, operating quantity is further added to the added value.

[0057] Such called quantity, residual quantity, and operating quantity are matched with an operation plan code, and are registered for every operation. MPU31 stores the called quantity registered into reuse article inventory file 35a, residual quantity, and the received operating quantity in RAM32, respectively, when operating quantity is inputted by the input section 33. And it judges whether the total value of residual quantity and operating quantity is in agreement with called quantity.

[0058] A reuse article is altogether reused by carrying out sterilization processing, and the number is in agreement if normal. This judgment is made about all the reuse article used for the operation. And since the reuse article may have been lost according to a certain cause when it was judged that it is not in agreement, MPU31 displays that the abnormal condition occurred on a display 34. For example, about the reuse article "an intestinal clamp (form: direct)", from central-control equipment 1, the residual quantity after "2" and an operation "1" is transmitted, and called quantity is memorized. However, a used reuse article "an intestinal clamp (form: direct)" is not carried into a sterilization room, but a reuse article manager inputs it as operating quantity "0." In this case, it becomes possible to judge easily that the inequality arose in the quantity of a reuse article and the abnormality situation occurred.

[0059] Drawing 10 and drawing 11 are flow charts which show the procedure between central-control equipment 1 and article-of-consumption management equipment 2. First, a central-control person inputs an operation plan from the input section 13 (step S101). MPU11 determines the quantity of a reuse article required for an operation, and an article of consumption with reference to operation name-operation supply correlation file 15b (step S102). The contents are memorized by operation planned file 15a, and the called quantity of an article of consumption is transmitted to article-of-consumption management equipment 2 (step S103).

[0060] The called quantity of the transmitted article of consumption is received in the communications department 26. (Step S104) And MPU21 determines order of an article of consumption based on the stock quantity and called quantity of an article of consumption which were registered into article-of-consumption inventory file 25a (steps S105 and A). In addition, about this decision approach, it mentions later. And MPU21 registers the received called quantity into article-of-consumption inventory file 25a. The called quantity of the article of consumption is subtracted from the stock quantity of the specifically registered article of consumption (step S111).

[0061] And when an operation is completed and the residual quantity of a reuse article and the residual quantity of an article of consumption are inputted by the central-control person from the input section 13, MPU11 receives the residual quantity (step S112), and transmits the residual quantity of an article of consumption to article-of-consumption management equipment 2 (step S113). MPU21 of article-of-consumption management equipment 2 registers the residual quantity into article-of-consumption inventory file 25a, when the residual quantity of an article of consumption is transmitted (step S114). Residual quantity is applied to the stock quantity specifically registered into article-of-consumption inventory file 25a.

[0062] Drawing 12 is a flow chart which shows the procedure of order decision processing. MPU21 reduces the called quantity **** (ed)** or received from the stock quantity of an article of consumption with the called quantity which received the stock quantity of the article of consumption registered into article-of-consumption inventory file 25a (step S121). And it judges whether the value which **** (ed)**, or the reduced value is smaller than the threshold defined beforehand (step S122). An order decision is made noting that YES) and an inventory at the (step S122 are insufficient, when it is judged that it is smaller than a threshold (step S123).

[0063] Quantity, time for delivery, etc. of a required article of consumption are transmitted to the terminal unit with which works 4 and 4 -- do not illustrate order of an article of consumption through a communication network N from MPU21. On the other hand, when the value which **** (ed)**, or the reduced value is larger than a threshold, NO) and order are not performed at the (step S122 (step S124). The above processing is performed about all the articles of consumption to which it was transmitted from central-control equipment 1. In addition, what is necessary is not to necessarily restrict to this approach and just to determine order by the proper approach, although [with the gestalt of this operation / stock quantity / called quantity] reduced [******** or].

[0064] Drawing 13 and drawing 14 are flow charts which show the procedure between central-control equipment 1 and reuse article management equipment 3. Since drawing 10 already described processing of step S101 and step S102, it omits. When the called quantity of a reuse article is determined by step S102, the called quantity of a reuse article is transmitted to reuse article management equipment 3 (step S131). The called quantity of the transmitted reuse article is registered into reuse article inventory file 35a for every reuse article (step S132). And when the residual quantity of a reuse article is received by step S112 (refer to drawing 11) which the operation finished and mentioned above, MPU11 transmits the residual quantity of a reuse article to reuse article management equipment 3 (steps S133 and B).

[0065] MPU31 which received the residual quantity of a reuse article registers the residual quantity of a reuse article into reuse article inventory file 35a (step S140). After operation termination, a reuse article manager is used in an operation and collects the used reuse articles put on the instrument table (step S141). And when the operating quantity of the used reuse article is inputted by the reuse article manager from the input section 33, MPU31 receives operating quantity (step S142), and stores operating quantity in RAM32 temporarily. And MPU31 compares the total value of the called quantity registered into reuse article inventory file 35a, and the operating quantity stored in residual quantity and RAM32 (step S143).

[0066] Since YES) and reuse articles are certainly collected at the (step S144 when the called quantity of a reuse article and the total value of residual quantity and operating quantity are in agreement as a result of comparing, sterilization processing of the reuse article is done by the reuse article manager (step S145), and it is kept in a warehouse (step S146). On the other hand, when it is judged that it is not in agreement (it is NO at step S144), it is judged as what ********* lost according to a certain cause, and MPU31 outputs an abnormality signal (step S147). An abnormality signal is outputted to the display 34 of reuse article management equipment 3, and that is displayed on a display 34 (step S148). Moreover, an abnormality signal may be outputted to central-control equipment 1, and that is displayed on the display 14 of central-control equipment 1 in that case (step S149).

[0067] Gestalt 2 drawing 15 of operation is the block diagram showing the hardware configuration of the central-control equipment 1 concerning the gestalt 2 of operation. Reference-value file 15d which registered the reference value which hits judging whether the residual quantity of the operation supply containing a reuse article and an article of consumption is proper for every operation supply is prepared in the storage section 15. Moreover, as for operation name-operation supply correlation file 15b stated with the gestalt 1 of operation, an operation supply

required for an operation and its quantity are registered. Drawing 16 is the explanatory view showing the database structure of operation name-operation supply correlation file 15b, and drawing 17 is the explanatory view showing a reference-value file 15d database structure.

[0068] As shown in drawing 16, the called quantity of a reuse article required for an operation and an article of consumption is registered as a default, respectively. In the example of drawing, the operation supply which needs an operation name about a "total gastrectomy way" is registered. The operation supply respectively required also about other operations is registered. The reference value which hits judging whether the residual quantity of the operation supply containing a reuse article and an article of consumption is proper is registered into drawing 17. According to the class of operation, a central-control person inputs this reference value suitably from the input section 13. Since the called quantity of the operation supply registered as a default is superfluous when exceeding the reference value which the residual quantity after an operation registered, MPU11 performs processing which changes the called quantity of a superfluous operation supply. Modification which is called quantity (refer to drawing 16) multiplies by it and changes a predetermined value (for example, 0.8th grade) into the registered called quantity, and should just re-register it into it, for example.

[0069] Drawing 18 is the explanatory view showing the screen which inputs the residual quantity of the operation supply after the operation concerning the gestalt 2 of operation. As shown in drawing, about an article of consumption "rose gauze", residual quantity is "7", and it is over the reference value "6." In this case, MPU11 changes the called quantity of rose gauze into "8" from "10", and registers the called quantity after that modification into operation name-operation supply correlation file 15b. By this, the called quantity of the operation supply determined based on an operation plan will converge to quantity required for reality.

[0070] Drawing 19 is the explanatory view showing the screen which inputs the residual quantity and ullage of an operation supply after the operation concerning the gestalt 2 of operation. Although the residual quantity of each operation supply explained the case of being superfluous, as above-mentioned, it is also considered that operation supplies run short. When lack of an operation supply occurs, a central-control person inputs residual quantity "-1", as shown in drawing 19. For example, about a reuse article "intestines Bella (format: 30cm)", one of the quantity of the is insufficient. In this case, MPU11 changes intestines Bella's (format: 30cm) called quantity into "3" from "2", and you may make it register the called quantity after that modification into operation name-operation supply correlation file 15b.

[0071] Drawing 20 and drawing 21 are flow charts which show the procedure of called quantity modification processing of the operation supply concerning the gestalt 2 of operation. When an operation is completed and the residual quantity of a reuse article and the residual quantity of an article of consumption (henceforth an operation supply) are inputted by the central-control person from the input section 13, MPU11 receives the residual quantity (step S112). In addition, this processing is as the gestalt 1 of operation having described. And MPU11 compares the residual quantity and the reference value of an operation supply with reference to reference-value file 15d (step S201). As a result of comparing, when residual quantity exceeds a reference value, or it multiplies by the suitable values (for example, 0.8 etc.) for the called quantity of the operation supply registered into YES) and operation name-operation supply correlation file 15b at the (step S202, a suitable value is reduced and called quantity is changed (steps S203 and C). And the called quantity after the modification is registered into operation name-operation supply correlation file 15b. In addition, when residual quantity does not exceed a reference value, at the (step S202, the contents are not changed noting that NO) and the called quantity registered are proper, but it shifts to the next processing (C).

[0072] Then, it judges whether MPU11 has less inputted residual quantity than 0, and whether the quantity of the operation supply run short in the comparison, i.e., an operation, (step S211). As a result of comparing, when residual quantity is smaller than 0, or it multiplies by the suitable value for the called quantity of the operation supply registered into YES) and operation name-operation supply correlation file 15b at the (step S211 (for example, 1.1 etc.), a suitable value is applied and called quantity is changed (step S212). And the called quantity after the modification is registered into operation name-operation supply correlation file 15b. In addition, at the (step S211, when residual quantity is zero or more, the contents are not changed noting that NO) and the called quantity registered are proper. Deed processing is ended to all the operation supplies registered into operation name-operation supply correlation file 15b in the above processing.

[0073] The gestalt 2 of this operation is considered as the configuration like ****, since other configurations and operations are the same as that of the gestalt 1 of operation, the same reference number is given to a corresponding part, and the detailed explanation is omitted.

[0074] Gestalt 3 drawing 22 of operation is the block diagram showing the hardware configuration of the article-of-

consumption management equipment 2 concerning the gestalt 3 of operation. As shown in drawing, claim article-of-consumption file 25b which registered the claim article of consumption set as the object of insurance claim among articles of consumption is prepared in the storage section 25. Drawing 23 is the explanatory view showing the database structure of claim article-of-consumption file 25b. The claim article of consumption set as the object of insurance claim according to the class of operation is registered as shown in drawing. An article-of-consumption manager performs registration to claim article-of-consumption file 25b from the input section 23. In drawing 23, the claim article of consumption "a knee-joint permutation set (implant)" set as the object of insurance claim in an operation "total knee replacement", "balloon catheter (with sensor) 16Fr", a "urine drainage set", etc. are registered. [0075] MPU21 computes the operating quantity of an article of consumption by subtracting the residual quantity of the article of consumption similarly transmitted after the operation from the called quantity of the article of consumption transmitted to article-of-consumption management equipment 2 before the operation from central-control equipment 1. And while extracting the operating quantity of the claim article of consumption set as the object of insurance claim with reference to claim article-of-consumption file 25b and memorizing in the storage section 25, it displays on a display 24. Drawing 24 is the explanatory view showing the claim article-of-consumption quantity menu displayed on the display 24.

[0076] As shown in drawing 24, the operating quantity of each claim article of consumption is displayed (shadow area of drawing 24). In this example, the claim quantity of "1" and a "urine drainage set" becomes [the claim quantity of a claim article of consumption "a knee-joint permutation set (implant)" / the claim quantity of "2" and "balloon catheter (with sensor) 16Fr"] "1" -- in this operation. Drawing 25 is the explanatory view showing the claim quantity of a monthly claim article of consumption etc. MPU21 accumulates the claim quantity of the extracted claim article of consumption in the storage section 25. And it is also possible to output the claim article of consumption exhausted in one month as shown in drawing, and claim quantity as the bill of particulars to a display 24 or the printing section which is not illustrated. In addition, you may make it display or print claim mark, the amount billed, the total claim mark for one month, and the total amount billed.

[0077] Drawing 26 is a flow chart which shows the procedure of quantity management processing of the claim article of consumption concerning the gestalt 3 of operation. MPU21 of article-of-consumption management equipment 2 receives the called quantity of the article of consumption transmitted before an operation from central-control equipment 1 (step S104). In addition, this processing is as the gestalt 1 of operation having described. And when the residual quantity of an article of consumption is transmitted to article-of-consumption management equipment 2 from central-control equipment 1 by step S113 after an operation, MPU21 receives this residual quantity (step S261), and it computes operating quantity by subtracting residual quantity from the called quantity of the received article of consumption (step S262). After following all the transmitted articles of consumption in this processing, with reference to claim article-of-consumption file 25b, the operating quantity of a claim article of consumption is extracted from the operating quantity of an article of consumption (step S263). The operating quantity of the extracted claim article of consumption is memorized by the storage section 25 (step S264).

[0078] The gestalt 3 of this operation is considered as the configuration like ****, since other configurations and operations are the same as that of the gestalt 1 of operation, and the gestalt 2 of operation, the same reference number is given to a corresponding part, and the detailed explanation is omitted.

[0079] Gestalt 4 drawing 27 of operation is the mimetic diagram showing the operation supply managerial system of this invention concerning the gestalt 4 of operation, and drawing 28 is the block diagram showing the hardware configuration of the automatic inventory storage warehouse 5. The automatic inventory storage warehouse 5 shown in drawing 27 is well-known, an article of consumption is contained to a housing for every article of consumption, and the operating quantity of each article of consumption is recognized by carrying out counting of the count which opens and closes the lid of the housing. The automatic inventory storage warehouse 5 is connected to central-control equipment 1 by the cable or wireless. In drawing 28, 52 is the detection section which detects closing motion of a housing and outputs the code number of the article of consumption of a housing to MPU51. MPU51 memorizes the code number and the detected count of an article of consumption outputted from the detection section 52 in the storage section 54. MPU51 transmits the operating quantity of each article of consumption after an operation from the communications department 53 which transmits and receives central-control equipment 1 and information.

[0080] Drawing 29 is the block diagram showing the hardware configuration of the central-control equipment 1 concerning the gestalt 4 of operation. Auxiliary claim article-of-consumption file 15e which registered the claim article of consumption set as the object of insurance claim among articles of consumption is prepared in the storage section 15. In addition, since the contents of auxiliary claim article-of-consumption file 15e are the same as that of

claim article-of-consumption file 25b, the detail is omitted. Moreover, MPU11 of central-control equipment 1 memorizes the operating quantity outputted from the automatic inventory storage warehouse 5 in 15f of operating quantity storage sections of the storage section 15.

[0081] Drawing 30 is the explanatory view showing the database structure of 15f of operating quantity storage sections. The operating quantity of the article of consumption outputted from the automatic inventory storage warehouse 5 is memorized as shown in drawing. MPU11 extracts the operating quantity of the claim article of consumption set from the operating quantity of the article of consumption memorized by 15f of operating quantity storage sections as the object of insurance claim with reference to auxiliary claim article-of-consumption file 15e. In addition, the operating quantity of the extracted claim article of consumption is memorized by the storage section 15. This point is as the gestalt 3 of operation having described.

[0082] Drawing 31 is a flow chart which shows the operating quantity of the article of consumption concerning the gestalt 4 of operation, and the procedure of operating quantity management processing of a claim article of consumption. First, when a medical practitioner etc. picks out an article of consumption from the automatic inventory storage warehouse 5, the detection section 52 outputs the article-of-consumption code used to MPU51 (step S311). MPU51 memorizes the operating quantity of an article of consumption in the storage section 54 based on the outputted article-of-consumption code (step S312). And MPU51 transmits the operating quantity of each article of consumption memorized in the storage section 54 to central-control equipment 1 after operation termination (step S313).

[0083] MPU11 of central-control equipment 1 memorizes the operating quantity of the article of consumption transmitted from the automatic inventory storage warehouse 5 in 15f of operating quantity storage sections (step S314). And MPU11 extracts the operating quantity of a claim article of consumption from the operating quantity of an article of consumption with reference to auxiliary claim article-of-consumption file 15e (step S315). And the operating quantity of the extracted claim article of consumption is memorized in the storage section 15 (step S316). Thereby, the operating quantity of the article of consumption used in the automatic inventory storage warehouse 5 can grasp correctly, and the period which stores an article of consumption required for a next operation in the automatic inventory storage warehouse 5 becomes possible [being shortened sharply]. And since the quantity can grasp correctly also about the claim article of consumption set as the object of the insurance claim used from the automatic inventory storage warehouse 5, it becomes possible to raise clear-ization of the income and outgo of a hospital more.

[0084] The gestalt 4 of this operation is considered as the configuration like ****, since other configurations and operations are the same as that of the gestalt 1 of operation thru/or the gestalt 3 of operation, the same reference number is given to a corresponding part, and the detailed explanation is omitted.

[0085] Gestalt 5 drawing 32 of operation is the mimetic diagram showing the hardware configuration for realizing the operation supply managerial system concerning the gestalt 5 of operation. The computer program for performing the central-control equipment 1 concerning the gestalt 1 of operation can also be provided [pre-installing in central-control equipment 1 like the gestalt 5 of this operation, and also providing, and] by record-medium 1a of portable molds, such as CD-ROM and MO. Furthermore, it is also possible to make a computer program spread as a subcarrier via a circuit, and to offer it. Below, the contents are explained.

[0086] Record-medium 1a (CD-ROM, MO, or DVD-ROM) the programs which the central-control equipment 1 shown in drawing 32 is made to receive residual quantity, make transmit the residual quantity of a reuse article to it, and the residual quantity of an article of consumption is made to transmit to it were remembered to be installed in the storage section 15 which central-control equipment 1 does not illustrate. This program is loaded to RAM12 of central-control equipment 1, and is performed. This functions as central-control equipment 1 of above this inventions.

[0087] Moreover, the computer program for performing the article-of-consumption management equipment 2 concerning the gestalt 1 of operation can also be provided [pre-installing in article-of-consumption management equipment 2 like the gestalt 5 of this operation, and also providing, and] by record-medium 2a of portable molds, such as CD-ROM and MO. Furthermore, it is also possible to make a computer program spread as a subcarrier via a circuit, and to offer it. Below, the contents are explained.

[0088] Make the article-of-consumption management equipment 2 shown in drawing 32 receive the called quantity of an article of consumption, make an inventory of an article of consumption register into it, order is made to determine, and record-medium 2a (CD-ROM, MO, or DVD-ROM) the programs into which the residual quantity of an article of consumption is made to register were remembered to be installed in the storage section 25 which article-of-consumption management equipment 2 does not illustrate. This program is loaded to RAM22 of article-

of-consumption management equipment 2, and is performed. This functions as article-of-consumption management equipment 2 of above this inventions.

[0089] Furthermore, the computer program for performing the reuse article management equipment 3 concerning the gestalt 1 of operation can also be provided [pre-installing in reuse article management equipment 3 like the gestalt 5 of this operation, and also providing, and] by record-medium 3a of portable molds, such as CD-ROM and MO. Furthermore, it is also possible to make a computer program spread as a subcarrier via a circuit, and to offer it. Below, the contents are explained.

[0090] The stock quantity of a reuse article is made to register into the reuse article management equipment 3 shown in drawing 32. Make the called quantity of a reuse article register, make the residual quantity of a reuse article register, and operating quantity is made to be received. The total value of called quantity, operating quantity, and residual quantity is made to compare, and when not in agreement, record-medium 3a (CD-ROM, MO, or DVD-ROM) the programs to which an abnormality signal is made to output were remembered to be is installed in the storage section 35 which reuse article management equipment 3 does not illustrate. This program is loaded to RAM32 of reuse article management equipment 3, and is performed. This functions as reuse article management equipment 3 of above this inventions.

[0091] The gestalt 5 of this operation is considered as the configuration like ****, since other configurations and operations are the same as that of the gestalt 1 of operation thru/or the gestalt 4 of operation, the same reference number is given to a corresponding part, and the detailed explanation is omitted.

[Translation done.]

* NOTICES *

JPO and INPIT are not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.*** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the mimetic diagram showing the operation supply managerial system concerning this invention.

[Drawing 2] It is the block diagram showing the hardware configuration of central-control equipment.

[Drawing 3] It is the explanatory view showing the input screen of an operation plan.

[Drawing 4] It is the explanatory view which displays the called quantity of an operation supply.

[Drawing 5] It is the explanatory view showing the screen which inputs the residual quantity of the operation supply after an operation.

[Drawing 6] It is the block diagram showing the hardware configuration of article-of-consumption management equipment.

[Drawing 7] It is the explanatory view showing the database structure of an article-of-consumption inventory file.

[Drawing 8] It is the block diagram showing the hardware configuration of reuse article management equipment.

[Drawing 9] It is the explanatory view showing the database structure of a reuse article inventory file.

[Drawing 10] It is the flow chart which shows the procedure between central-control equipment and article-of-consumption management equipment.

[Drawing 11] It is the flow chart which shows the procedure between central-control equipment and article-of-consumption management equipment.

[Drawing 12] It is the flow chart which shows the procedure of order decision processing.

[Drawing 13] It is the flow chart which shows the procedure between central-control equipment and reuse article management equipment.

[Drawing 14] It is the flow chart which shows the procedure between central-control equipment and reuse article management equipment.

[Drawing 15] It is the block diagram showing the hardware configuration of the central-control equipment concerning the gestalt 2 of operation.

[Drawing 16] It is the explanatory view showing the database structure of an operation name-operation supply correlation file.

[Drawing 17] It is the explanatory view showing the database structure of a reference-value file.

[Drawing 18] It is the explanatory view showing the screen which inputs the residual quantity of the operation supply after the operation concerning the gestalt 2 of operation.

[Drawing 19] It is the explanatory view showing the screen which inputs the residual quantity and ullage of an operation supply after the operation concerning the gestalt 2 of operation.

[Drawing 20] It is the flow chart which shows the procedure of called quantity modification processing of the operation supply concerning the gestalt 2 of operation.

[Drawing 21] It is the flow chart which shows the procedure of called quantity modification processing of the operation supply concerning the gestalt 2 of operation.

[Drawing 22] It is the block diagram showing the hardware configuration of the article-of-consumption

management equipment concerning the gestalt 3 of operation.

[Drawing 23] It is the explanatory view showing the database structure of a claim article-of-consumption file.

[Drawing 24] It is the explanatory view showing the claim article-of-consumption quantity menu displayed on the display.

[Drawing 25] It is the explanatory view showing the claim quantity of a monthly claim article of consumption etc.

[Drawing 26] It is the flow chart which shows the procedure of quantity management processing of the claim article of consumption concerning the gestalt 3 of operation.

[Drawing 27] It is the mimetic diagram showing the operation supply managerial system of this invention concerning the gestalt 4 of operation.

[Drawing 28] It is the block diagram showing the hardware configuration of an automatic inventory storage warehouse.

[Drawing 29] It is the block diagram showing the hardware configuration of the central-control equipment concerning the gestalt 4 of operation.

[Drawing 30] It is the explanatory view showing the database structure of the operating quantity storage section.

[Drawing 31] It is the flow chart which shows the operating quantity of the article of consumption concerning the gestalt 4 of operation, and the procedure of operating quantity management processing of a claim article of consumption.

[Drawing 32] It is the mimetic diagram showing the hardware configuration for realizing the operation supply managerial system concerning the gestalt 5 of operation.

[Description of Notations]

1 Central-Control Equipment

1a Record medium

15b Operation name-operation supply correlation file

15d Reference-value file

15e Auxiliary claim article-of-consumption file

15f Operating quantity storage section

2 Article-of-Consumption Management Equipment

2a Record medium

25a Article-of-consumption inventory file

25b Claim article-of-consumption file

3 Reuse Article Management Equipment

3a Record medium

35a Reuse article inventory file

5 Automatic Inventory Storage Warehouse

N Communication network

[Translation done.]

* NOTICES *

JPO and INPIT are not responsible for any damages caused by the use of this translation.

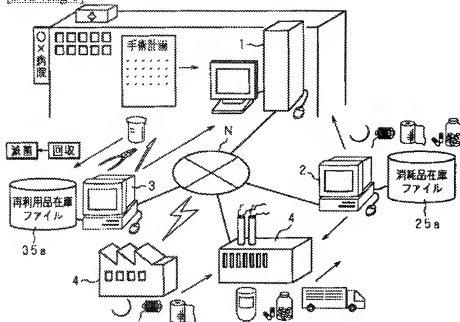
1. This document has been translated by computer. So the translation may not reflect the original precisely.

2. **** shows the word which can not be translated.

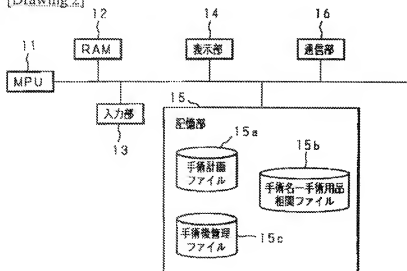
3. In the drawings, any words are not translated.

DRAWINGS

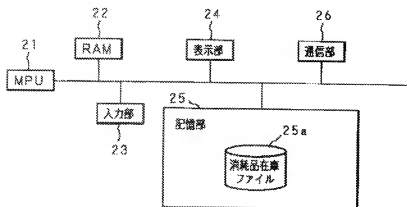
[Drawing 1]



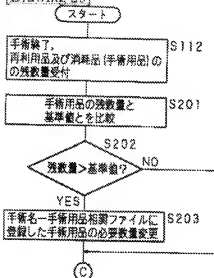
[Drawing 2]



[Drawing 6]



[Drawing 20]



[Drawing 3]

手術計画入力

データ1 データ2 データ3 ...

手術日: 2000/08/21

時間: 12 時 00 分 手術室: No. 15

患者名: コード 0009 氏名 佐藤太郎 手術名: 胃全摘術

医師データ

執刀医師	コード	氏名	区分
担当医	0002	山田次郎	医師
	10A3	田中一郎	放射線技師
	:	:	:

看護婦データ

コード	氏名
A035	田中花子
:	:

手術計画コード: 0352

決定 キャンセル

[Drawing 4]

手術用品必要数量

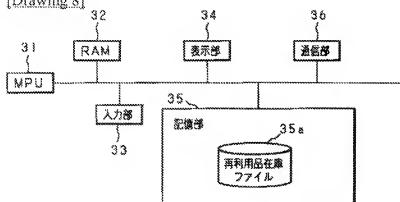
手術計画コード

手術名 執刀医師

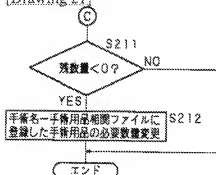
手術用品

再利用品名	必要数量	消耗品名	必要数量
メス (型式:No.11)	1	絹糸 (型式:50cm×10本入り)	3
メス (型式:No.22)	1	絹糸 (型式:60cm×10本入り)	5
鑷ペラ (型式:30cm)	2	パラガーゼ	10
ピーカー	3	生理食塩水	5
縫針子 (型式:直)	2	消毒用アルコール	1
縫針子 (型式:曲)	2	〇×殺菌剤 (型式:50ml)	1
ストラット型格針器	5	〇×縫合針 (型式:3-0)	8
:	:	:	:

[Drawing 8]



[Drawing 21]



[Drawing 5]

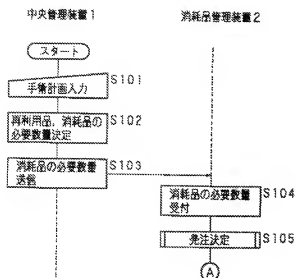
手術用品残数量					
手術計画コード	0352				
手術名	胃全摘術	執刀医師	0002		
			決定	キャンセル	
手術用品					
再利用品名	必要数量	残数量	消耗品名	必要数量	残数量
メス (型式:No.11)	1	0	絹糸 (型式:50cm×10本入り)	3	1
メス (型式:No.22)	1	0	絹糸 (型式:60cm×10本入り)	5	3
綿べら (型式:30cm)	2	1	パラガーゼ	10	3
ピーカー	3	2	生食塩水	5	2
縫針子 (型式:直)	2	1	消毒用アルコール	1	0
縫針子 (型式:曲)	2	0	〇×殺菌剤 (型式:50ml)	1	0
ストラット型挿針器	5	2	〇×縫合針 (型式:3-0)	8	2
:	:	:	:	:	:

[Drawing 7]

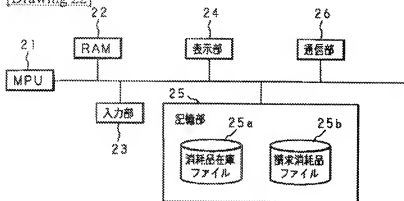
25a

消耗品在庫ファイル			
日付	2000/08/20		
消耗品名	在庫数量	しきい値	前回発注日
絹糸 (型式:50cm×10本入り)	350	30	2000/08/20
絹糸 (型式:60cm×10本入り)	85	20	2000/07/25
絹糸 (型式:70cm×10本入り)	200	10	2000/07/29
:	:	:	:
パラガーゼ	60	10	2000/06/30
生食塩水	120	5	:
消毒用アルコール	25	3	:
〇×殺菌剤 (型式:50ml)	30	3	:
〇×縫合針 (型式:3-0)	27	20	:
:	:	:	:

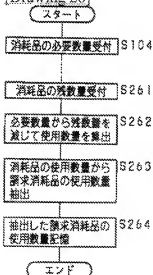
[Drawing 10]



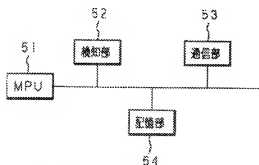
[Drawing 22]



[Drawing 26]



[Drawing 28]



[Drawing 9]

35 a

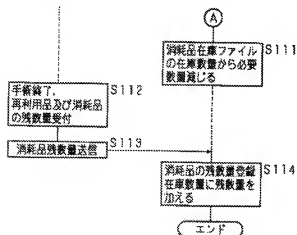
再利用品在庫ファイル

手帳計測コード	0352	0353	...	
再利用品名	在庫数量	必要数量	残数量	使用数量
メス (型式:No.11)	50	1	0	1
メス (型式:No.22)	55	1	0	1
...
薄ペラ (型式:30cm)	60	2	1	1
ピーカー	80	3	2	1
...
厚鋸子 (型式:直)	30	2	1	0
厚鋸子 (型式:曲)	40	2	0	2
ストラット型持針器	70	5	2	3
...

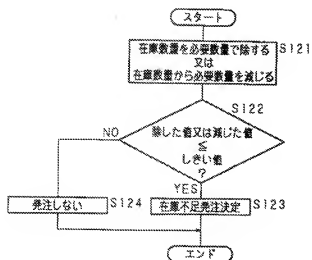
[Drawing 11]

中央管理装置

消耗品管理装置 2



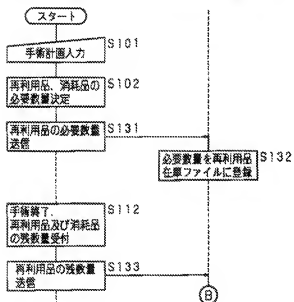
[Drawing 12]



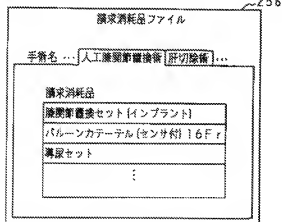
[Drawing 13]

中央管理装置 1

再利用品管理装置 3

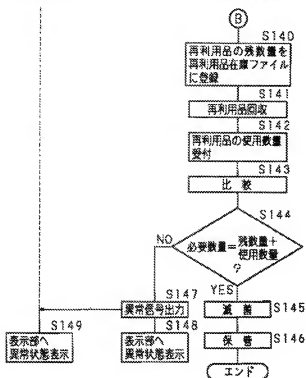


[Drawing 23]

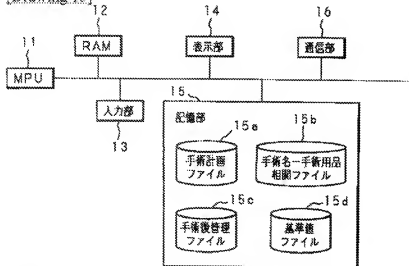


[Drawing 14]
中央管理装置 1

再利用用品管理装置 3



[Drawing 15]



[Drawing 30]

使用数量記憶部

手術コード ... 0835 0763 ...

消耗品名	使用数量
導尿セット	2
パラガーゼ	8
折りガーゼ	3
⋮	⋮

[Drawing 16]

手術名—手術用品範囲ファイル

手術名 [胃全摘術] [小兒外科一般開腹・閉腹術] [人工臓器置換術] [肝切除術] ...

手術用品

再利用品名	必要数量	消耗品名	必要数量
メス (型式:No.1)	1	絹糸 (型式:50cm×10本入り)	3
メス (型式:No.22)	1	絹糸 (型式:60cm×10本入り)	5
薄べう (型式:30cm)	2	パラガーゼ	10
ピーカー	3	生理食塩水	5
麻酔子 (型式:直)	2	消毒用アルコール	1
麻酔子 (型式:曲)	2	〇×麻酔剤 (型式:50ml)	1
ストラット型持針器	5	〇×縫合針 (型式:3-0)	8
⋮	⋮	⋮	⋮

[Drawing 17]

~15d
基準値ファイル

手術名 ...

手術用品

再利用品名	基準値	消耗品名	基準値
メス (型式:No.11)	1	絹糸 (型式:50cm×10本入り)	2
メス (型式:No.22)	1	絹糸 (型式:60cm×10本入り)	3
绷ベラ (型式:30cm)	2	バラガーゼ	6
ピーカー	2	生理食塩水	3
縫針子 (型式:直)	2	消毒用アルコール	1
縫針子 (型式:曲)	2	〇×殺菌剤 (型式:50ml)	1
ストラット型持針器	3	〇×縫合針 (型式:3-0)	5
:	:	:	:

[Drawing 18]

手術用品数値

手術計画コード

手術名 執刀医師

手術用品 決定 キャンセル

再利用品名	必要数量	残数量	基準値	消耗品名	必要数量	残数量	基準値
メス (型式:No.11)	1	0	1	絹糸 (型式:50cm×10本入り)	3	1	2
メス (型式:No.22)	1	0	1	絹糸 (型式:50cm×10本入り)	5	3	3
绷ベラ (型式:30cm)	2	1	2	バラガーゼ	10	7	6
ピーカー	3	2	2	生理食塩水	5	2	3
縫針子 (型式:直)	2	1	2	消毒用アルコール	1	0	1
縫針子 (型式:曲)	2	0	2	〇×殺菌剤 (型式:50ml)	1	0	1
ストラット型持針器	5	4	3	〇×縫合針 (型式:3-0)	8	7	5
:	:	:	:	:	:	:	:

[Drawing 19]

手術用品残数管理

手術計画コード 手術名 執刀医師

手術用品

再利用品名	必要数量	残数量	基準値	消耗品名	必要数量	残数量	基準値
メス (型式:No.11)	1	0	1	絹糸 (型式:50cm×10本入り)	3	1	2
メス (型式:No.22)	1	0	1	絹糸 (型式:50cm×10本入り)	5	3	3
縫針 (型式:30cm)	2	1	2	パラガーゼ	1	0	1
ピーカー	3	2	3	生肌骨埋水	5	2	3
縫針子 (型式:直)	2	1	2	消毒用アルコール	1	0	1
縫針子 (型式:曲)	2	0	2	〇×殺菌剤 (型式:50ml)	1	0	1
ストラット型縫針器	5	4	5	〇×縫合針 (型式:3-0)	8	7	5
:	:	:	:	:	:	:	:

[Drawing 24]

請求消耗品数量メニュー

〇〇〇〇 〇〇 〇〇 〇〇 〇〇 〇〇 〇〇 〇〇 〇〇 〇〇

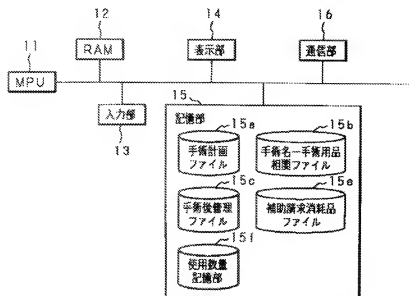
〇〇〇〇〇〇 〇〇〇〇:

手術計画コード 手術日

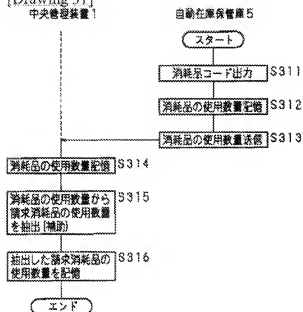
手術名

消耗品名	必要数量	残数量	使用数量	請求対象
縫合器縫合セット (インプラント)	3	1	2	○
整形外科セット	1	0	1	×
オリーブテープ	2	0	2	×
バルーンカテーテル (センサ付) 16Fr	1	0	1	○
オーバーテープルカバー	3	2	1	×
導尿セット	1	0	1	○
:	:	:	:	:

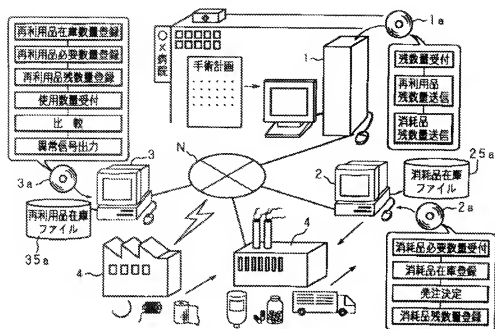
[Drawing 25]



[Drawing 31]
中央登録装置1



[Drawing 32]



[Translation done.]